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**DOE-FEMP, LIQUID MIXED WASTE PROJECT**

**03/09/95**

**DOE-0687-95  
DOE-FN      EPAS  
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LETTER**



Department of Energy  
Fernald Environmental Management Project  
P. O. Box 538705  
Cincinnati, Ohio 45253-8705  
(513) 648-3155

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MAR 09 1995

DOE-0687-95

Mr. Paul Pardi, Group Leader  
Southwest District Office  
Division of Hazardous Waste Management  
Ohio Environmental Protection Agency  
40 South Main Street  
Dayton, Ohio 45202-2086

Dear Mr. Pardi:

**DEPARTMENT OF ENERGY - FERNALD ENVIRONMENTAL MANAGEMENT PROJECT, LIQUID MIXED WASTE PROJECT**


Reference: Letter, P. Pardi to W. J. Quaider, "DOE-FEMP Mixed Waste Stabilization Project," dated January 23, 1995

Enclosed, per your request, is additional information on the Fernald Environmental Management Project (FEMP) Liquid Mixed Waste Project. Both specific and general comments have been addressed with supporting documentation located in enclosures to this letter. The information provided demonstrates that the FEMP will be implementing this project in accordance with the Ohio hazardous waste rules.

The Department of Energy, Fernald Area Office (DOE-FN) is currently preparing a Project Specific Work Plan (PSWP) for the Liquid Mixed Waste Project. Upon completion, the PSWP will be forwarded to Ohio Environmental Protection Agency (OEPA) and the U.S. Environmental Protection Agency (U.S. EPA) for review and approval.

If you have questions on the referenced project, please contact Ed Skintik at (513) 648-3151.

Sincerely,

  
W. J. Quaider  
Acting Associate Director  
Office of Safety & Assessment

FN:Skintik

Enclosures: As Stated

cc w/encl:

AR Coordinator

cc w/o encl:

J. M. Sattler, DOE-FN  
J. A. Cole, FERMC0  
T. Hagen, FERMC0/65-2  
J. T. Witzeman, FERMC0  
J. Saric, U.S. EPA-5HRE-8J  
T. A. Schneider, OEPA-Dayton

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# **SPECIFIC COMMENTS - OEPA**

1. Comment: DOE must submit information that demonstrates the containment system proposed for this project complies with OAC 3745-55-75 (B) (1), which states that a base shall underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed. In order to demonstrate compliance, submit information specific to the strength and compatibility of the containment system liner that is being proposed for this project.

Response: Secondary containment compatibility specifications/test results are located in Attachment A. Based on the wastes the FEMP plans to bulk, no strength or compatibility problems are anticipated.

2. Comment: In order to demonstrate compliance with OAC 3745-55-75 (B) (3) and (4), submit the dimensions of the containment area and provide the calculations that demonstrate the containment system has sufficient capacity to contain 10% of the volume of the containers or the volume of the largest container, whichever is greater, plus the precipitation from a twenty-five year, twenty-four hour rainfall event.

Response: All six tanks in the secondary containment vessel are 21,000 gallons. For this reason the volume of any one tank is more than 10% of the capacity of the entire contained tank farm. Calculations for secondary containment capacity are as follows:

## **Capacity of Largest Tank:**

$$21,000 \text{ gal} \div 7.4 \text{ gal/cu.ft} = 2838 \text{ cubic feet (cf)}$$

The tanks will never contain more than 20,000 gallons (alarm level). For this reason, the volume calculated is conservative.

## **Actual Containment Capacity:**

The secondary containment vessel is 90' x 60' x 1.5' in depth.

$$90' \times 60' \times 1.5' = 8100 \text{ cf}$$

Volume occupied by six 40' x 8' rectangular tanks in the 1.5' deep secondary containment vessel:

$$6 \times 8' \times 40' \times 1.5' = 2880 \text{ cf}$$

## **Total Available Containment Capacity:**

$$8100 \text{ cf} - 2880 \text{ cf} = 5220 \text{ Cubic Feet}$$

## **Containment Requirements:**

25 Yr/24 hr Rain Event 5.4" = .45'  
 Volume of one Tank 2838 cf

Containment Capacity Evaluation:

$$2838 \text{ cf} \div 5220 \text{ cf} = 54.4\%$$

Draining one full tank into the secondary containment vessel uses 54.4% of the capacity of the secondary containment vessel.

Recalling the secondary containment vessel is 1.5' in depth:

$$1.5' \times 54.4\% = .816'$$

The tank volume would fill the secondary containment to a depth of .816 feet.

Tank volume plus rain event volume:

$$.816' + .45' = 1.266'$$

The volume of the largest of six tanks plus the volume of a 25 year/ 24 hour rain event would fill the secondary containment vessel to 1.266'. The remaining capacity provides .234' or 2.8" of free board.

3. Comment: To demonstrate compliance with OAC 3745-55-75 (B) (3) and (5), submit specific procedures that will be in place to ensure spilled or leaked waste and accumulated precipitation will be removed from the containment area to protect the containers from contact with accumulated liquids.

Response: The secondary containment inspection portion of SOP 20-C-616 *Inspection of Hazardous Waste Management Units* (page 11, 5.2.2) will be utilized to document any free liquids found in the containment area. A modified inspection form has been developed for this project and is attached to the procedure. The pumping procedure associated with the Supersucker, SOP 43-C-413 *Handling Waste Materials with the Industrial Vacuum Loader Truck (Supersucker)* will be utilized to remove free liquids found within the containment area. These procedures and the modified forms are located in Attachment B. Management of spill residues will be further discussed in the Project Specific Work Plan for the Liquid Mixed Waste Project.

4. Comment: DOE-FEMP must demonstrate compliance with OAC 3745-55-71 by submitting copies of the hydrostatic tests which were performed on the containers.

Response: A copy of the most recent Hydrostatic Testing Certification for the bulking tanks, which demonstrates compliance with OAC 3745-55-71, is located in Attachment C.

5. Comment: Submit documentation which demonstrates compliance with the

contingency plan requirements of OAC 3745-54-51 through 56.

Response: The FEMP Contingency Plan was submitted to OEPA with the Part B Permit application (Section G) in September 1994. The Plan satisfies the requirements of OAC 3745-54-51 through 56. The "Emergency Response Team Preplan" for this project is found in Attachment D. The Emergency Response Team Fire/Spill PrePlan was developed by Fire Safety. A project specific Health and Safety Plan was prepared, as with all major projects, to ensure hazards posed by a project are managed in such a way that safety of workers and, on a larger scale, the surrounding environment is not compromised.

6. Comment: To demonstrate compliance with OAC 3745-54-31, submit a copy of the procedures that will be used to transport the drummed material to the transfer area, and the procedures that will be used to transfer the waste from the drums to the bulking containers.

Response: The procedure used to transport the drummed material to the transfer area, SOP 20-C-017 **Movement of Hazardous/Mixed Waste** and the procedure that will be used to transfer the waste from the drums to the bulk storage tanks, SOP 20-C-613 **Emptying Liquid Hazardous Waste Storage Containers** are located in Attachment E. SOP 20-C-613 is currently being modified to specifically include tanks.

#### GENERAL COMMENTS - OEPA

- A. Comment: In the TSCA Incinerator FY-95 Burn Plan and Waste Acceptance Plan Information Package, the summary burn schedule for FY 1995 is provided as revised Attachment 3. In revised Attachment 3, a Waste Group Descriptions Table designates FERMCO's waste as "NON-FFCA". What is the significance of this designation?

Response: The Oak Ridge K-25, Y-12, and ORNL facilities, and the Paducah Gaseous Diffusion Plant, have in place, Federal Facilities Compliance Agreements (FFCA), for timely treatment and disposal of LDR and PCB wastes. Disposition of affected waste streams at each site is time critical (compliance schedules), with all affected wastes scheduled for treatment at the TSCA Incinerator. Due to limited waste treatment capacities at the TSCA Incinerator, FFCA wastes get first priority in the burn plan, so that these facilities can meet their compliance schedules. FEMP liquid mixed wastes are not part of an FFCA for LDR, and are therefore, categorized as NON-FFCA wastes on the TSCA Incinerator burn schedule.

- B. Comment: Issue 2 for FERMCO is the acceptance of the TSCA Incinerator of liquid-incinerable waste generated during CERCLA activities. Has this issue been resolved?

Response: The letter from the USEPA approving TSCA to accept CERCLA waste is located in Attachment F.

- C. Comment: In Martin Marietta's Waste Acceptance Plan, Section 2.0, it is stated that the TSCA Operations Division must approve a sampling plan prior to sampling a waste stream for treatment at the TSCA incinerator. Does FERMCO have an approved sampling plan for this project.

Response: Martin Marietta Energy Systems, Inc. (MMES), operators of the K-1435 TSCA Incinerator, will not need to accept a FERMCO sampling plan because they are sending representatives to the FEMP to sample the bulk storage tanks as they are filled and are utilizing their own sampling plan.

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**ATTACHMENT A**

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**POLY-FLEX, INC.**

2000 W. Marshall Drive Grand Prairie, Texas 75051 USA

800-527-3322

214-647-4374

FAX 214-988-8331

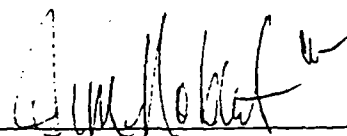
**CHEMICAL COMPATIBILITY ANALYSIS**

The attached list of chemicals will fall into one of the three categories listed below. Only those with an "X" are considered compatible. Even though a chemical may not be considered compatible with the liner, the liner will maintain its continuity against all chemicals at the concentrations indicated below for 24 hours. Some minor contamination could occur due to permeation.

1. Chemicals of this group and at this concentration will cause irreversible degradation due to cross linking of the polymer over an extended period of time (greater than 30 days). Cross linking can lead to brittle failure. Less than 24 hours of contact with the chemical will not cause any measurable change or lead to failure of the liner.

2. Chemicals of this group and at this concentration will cause the liner to experience a weight gain of 5-15%, swelling up to 10%, and a loss of tensile strength of 5-20%. If the chemicals are removed within 30 days, this reaction is reversible; and if no stress has been placed on the liner, the liner will retain nearly all its original properties and shape. However, vapor permeation of the chemical through the liner may occur soon after contact, and will continue until the chemical is removed.

"X". Chemicals of this group and concentration have negligible effect on the physical properties of the liner, and will cause only minor contamination due to permeation.

  
\_\_\_\_\_  
Jim Nobert, Laboratory Manager

	BARIUM	3	X	X
	LEAD	4	X	X
	ARSENIC	1	X	X
	CADMIUM	<1	X	X
	SILVER	<1	X	X
	MERCURY	<1	X	X
	CHROMIUM	1	X	X
10026	ACETONE	9600	X	2
	METHYLENE CHLORIDE	840	X	X
	TRICHLOROETHANE	21,400	2	2
	TRICHLOROETHYLENE	830	X	X
	MIBK	840	X	X
	TOLUENE	790	X	X
	TRICHLOROFLUOROMETHANE	4400	X	2
	CARBON TETRACHLORIDE	1700	X	X
	PCB	500	X	2
	URANIUM	1	X	2
1411	ACETONE	57,000	X	2
	CARBON TETRACHLORIDE	6300	X	2
	ETHYL BENZENE	41,400	X	2
	TOLUENE	6300	X	X
	TRICHLOROETHANE	1,000,000	2	2
	XYLENE	100,000	2	2
	BARIUM	6500	X	X
	CHROMIUM	2300	X	X
	LEAD	14,500	X	X
	MERCURY	33	X	X
	SELENIUM	480	X	X
1229	URANIUM	66	X	X
	THORIUM	1000	X	X
	LEAD	11	X	X
	MERCURY	<1	X	X
	ACETONE	14	X	X
	TRICHLOROETHANE	40	X	X
	TETRACHLOROETHYLENE	40	X	X
	XYLENE	7	X	X
418	ACETONE	??	2	2
390	URANIUM	521	X	X
	ARSENIC	2	X	X
	BARIUM	261	X	X
	CADMIUM	1	X	X
	CHROMIUM	4	X	X
	LEAD	143	X	X
	ACETONE	220	X	X

	TRICHLOROFLUOROMETHANE	2100	X	2
	ARSENIC	<1	X	X
	BARIUM	<1	X	X
	CADMIUM	2	X	X
	CHROMIUM	2	X	X
	LEAD	64	X	X
	MERCURY	<1	X	X
	SELENIUM	<1	X	X
	SILVER	<1	X	X
60070	ACETONE	32	X	X
	BENZENE	15	X	X
	ETHYL BENZENE	14	X	X
	TRICHLOROETHANE	14	X	X
	TETRACHLOROETHANE	15	X	X
	TOLUENE	15	X	X
	TRICHLOROFLUORMETHANE	16	X	X
	XYLENE	15	X	X
	BARIUM	<1	X	X
	CADMIUM	??	X	X
	CHROMIUM	3	X	X
	LEAD	1	X	X
	SELENIUM	<1	X	X
	URANIUM	29	X	X
60051	URANIUM	5460	X	X
	ACETONE	15,500	X	2
	TETRACHLOROETHYLENE	102,600	2	2
	TRICHLOROETHANE	7400	X	2
	TOLUENE	6200	X	X
	XYLENE	3700	X	X
	METHYL ISOBUTYL KETONE	6200	X	X
	ARSENIC	<1	X	X
	BARIUM	<1	X	X
	CADMIUM	<1	X	X
	CHROMIUM	<1	X	X
	LEAD	1	X	X
	MERCURY	??	X	X
30034	BENZENE	??	2	2
	TRICHLOROETHANE	??	2	2
	URANIUM	74	X	X
426	METHANOL	800,000	X	X
	CYCLOHEXANE	200,000	2	2
20003	URANIUM	38	X	X
	TRICHLOROETHANE	610,000	2	2
	TETRACHLOROETHYLENE	900	X	X

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**ATTACHMENT B**

Fernald Environmental Management Project Fernald Environmental Restoration Management Corp. REMEDATION SUPPORT OPERATIONS DOCUMENT PROGRAM		Page 1 of 74 Revision No. 0 Revision Date: N/A	
REMEDATION SUPPORT OPERATIONS PROCEDURE	Inspection of Hazardous Waste Management Units		SOP 20-C-616
			Area: As Applicable
(Signature on File) Authorization: G. Hazlewood, Waste Treatment and Storage Manager		Supersedes: SOP 20-C-616 Dated: 12-15-92	Issue Date: 09-07-94

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## 1.0 PURPOSE

The purpose of this procedure is to provide the inspection requirements for Hazardous Waste Management Units (HWMUs) at the Fernald Environmental Management Project (FEMP).

## 2.0 SCOPE

This procedure applies to personnel involved in the inspection of active and inactive HWMUs.

## 3.0 RESPONSIBILITIES

3.1 Facility Owners or Designee in the Facility Owners absence shall be responsible for the following:

3.1.1 Coordinating assistance from support organization as required.

3.1.2 Controlling unauthorized access to HWMUs.

3.1.3 Ensuring the inspection log(s) are completely and correctly filled out.

3.1.4 Signing and distributing inspection logs to the Waste Compliance/RCRA Operating Record.

3.1.5 Ensuring authorized storage configurations, aisle spacings, waste segregation and other storage requirements are maintained.

3.1.6 Ensuring that nuclear criticality safety and applicable HWMU signs (per this procedure) are posted.

3.1.7 Ensuring that there is a copy of the RCRA Contingency Plan available for use.

3.1.8 Maintaining HWMUs in compliance with all DOE Orders and regulatory requirements.

3.2 Supervisor or Designee in the Supervisor's absence shall be responsible for the following:

3.2.1 Ensuring personnel conducting inspections or working within a HWMU are qualified per the established training requirements identified by the Division Manager.

3.2.2 Initiating corrective actions.

3.2.3 Recording actions taken, including completion date, on the inspection log.

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### 3.0 RESPONSIBILITIES (cont.)

- 3.2.4 Contacting Industrial Hygiene (IH) or Radiological Control to determine the appropriate respiratory protection and/or additional protective clothing for the task being performed.
  - 3.2.5 Issuing the required respiratory equipment and/or Personal Protective Equipment (PPE) to operators/inspectors.
  - 3.2.6 Notifying the Assistant Emergency Duty Officer (AEDO) and completing report following SSOP-1018 and ED-0001 if a spill occurs.
  - 3.2.7 Obtaining and posting permits that may be required.
  - 3.2.8 Maintain a current list of safety equipment from Attachment G-1 of the RCRA Contingency Plan at or near the location of the HWMU for inspection purposes.
  - 3.2.9 Ensure that all operation equipment/tools used to manage/inspect the HWMU are surveyed and/or decontaminated prior to removal from the unit.
  - 3.2.10 Ensuring that personnel performing HWMU inspections are trained to this procedure and qualified to do the work by contacting the training coordinator at ext. 6821 to obtain records.
- 3.3 Inspectors shall be responsible for the following:
- 3.3.1 Complete the required HWMU training courses.
  - 3.3.2 Complying with this procedure.
  - 3.3.3 Taking immediate action to control a spill or leak.
  - 3.3.4 Notifying the Supervisor (or AEDO in Supervisor's absence) of the magnitude, location, status, and type of spilled material.
  - 3.3.5 Notify the Supervisor of any deficiencies with the HWMU.

## 4.0 SAFETY REQUIREMENTS

- 4.1 Safety glasses shall be worn unless other eye protection is specified by IH and/or Radiological Control on applicable permits (i.e. cover goggles, face shields or respirators).
- 4.2 Cover goggles/face shields, neoprene rubber gloves, and a rubber apron shall be worn when handling caustic, acids, or any other chemical which could cause immediate skin damage upon contact.
- 4.3 Respiratory protection and/or PPE issued by the Supervisor shall be worn when required by IH and/or Radiological Control.
- 4.4 Leather-palm gloves shall be worn when handling drums, operating equipment, and when handling rough/sharp-edges.
- 4.5 Personal safety equipment (eye-wash, fire extinguishers, safety showers) shall be operational and readily available for emergencies.
- 4.6 A communications device, such as a telephone or hand-held two-way radio, capable of summoning emergency assistance shall be immediately available to persons conducting work/inspections in/or around HWMUs (device must be operationally tested prior to entering the HWMU).
- 4.7 Any release of hazardous waste shall be reported immediately per SOP 20-C-606, "Hazardous Material Spill Clean-Up."
- 4.8 Employees shall have reviewed, and be familiar with the information contained in the MSDS and the MEF for the chemical/hazardous materials that may be used or encountered, if there are any applicable MSDSs or MEFs.
- 4.9 Personnel shall have access to emergency response equipment.

#### 4.0 SAFETY REQUIREMENTS (cont.)

- 4.10 A "Chemical Hazardous Work Permit," and/or "Radiation Work Permit," shall be completed before conducting any work (excluding inspections) at any HWMU.

**NOTE:** There are HWMUs that are located in contamination areas that RWPs are required even for inspections, but these areas already have established RWPs.

- 4.11 Any circumstance which could have resulted in an intake of radioactive materials by inhalation, ingestion, or absorption shall immediately be reported to a Supervisor. The Supervisor shall immediately report the circumstance of possible radioactive materials intake to ES&H Radiological Control Department for evaluation. When the suspect isotope is uranium, the involved personnel shall report to the Urine Sampling Station at the end of their shift to complete an Incident Investigation Report (IIR) (Form No. FS-F-1458), and submit an incident urine sample. The involved personnel shall also report to the Urine Sampling Station at the start of their next shift to submit a follow-up urine sample. When the suspect isotope is other than uranium, the involved personnel shall report to the Dosimetry Section of the Radiological Control Department for further determination of actions. Employees are responsible for complying with additional requirements as specified by the Radiological Control Section.
- 4.12 Any situation which could have resulted in the inhalation, ingestion, or absorption of a hazardous material shall immediately be reported to a Supervisor or to the Assistant Emergency Duty Officer (AEDO), who will immediately report the circumstances to Medical and Industrial Hygiene. The involved personnel shall be directed by the Supervisor or AEDO as to when and where to report for medical evaluation, completion of an Incident Investigation Report (IIR) (Form No. FS-F-1458), and submitting bioassay samples (e.g., blood, urine). Employees are responsible for complying with any additional requirements as specified by ES&H.
- 4.13 Safety equipment shall be inspected for availability and good working condition.
- 4.14 All equipment storage locations (i.e. Safety and Emergency) shall be visible and accessible to personnel who work in this area.
- 4.15 For any confined space entries (i.e. into tanks, sumps, etc.) a "Confined Space Entry Permit" is required.

## 5.0 PROCEDURE

5.1 The applicable "Hazardous Waste Management Unit (HWMU) Inspection Log," (See Forms 1 through 56) shall be filled out as follows:

5.1.1 The top portion of the inspection log shall be completed.

- Inspector must sign and date, including Badge # after inspection has been completed.
- Facility Owner must review, sign and date, then send to RCRA Operating Records.

5.1.2 A check mark shall be entered in the "Acceptable" or "Unacceptable" column, as applicable, for each item number.

5.1.3 If item is checked "Unacceptable," a brief description of the observation and corrective action taken shall be entered in the appropriate column. The "Comments" portion shall be used if additional space is required.

**NOTE 1:** Items deemed unacceptable which pose an imminent hazard, or where a hazard has already occurred, shall be corrected immediately.

**NOTE 2:** Any discrepancies found and corrective actions taken must be recorded on the inspection log, when the work order is requested and must remain on all inspection forms until it has been completed.

5.1.4 The type of HWMU being inspected (Refer to Attachment 1) shall be identified by the number of the unit at the top of the applicable inspection log.

5.1.5 The required HWMU signs shall be readable from twenty-five feet away and posted in sufficient quantities to be seen from any approach to the unit.

5.1.6 A "DANGER Authorized Personnel Only," or its equivalent, shall be in place at every HWMU at the FEMP.

5.1.7 A "No Smoking, Matches, or Open Flame" sign, or equivalent, is required at applicable HWMUs.

**5.0 PROCEDURE (cont.)**

- 5.1.8 PCB warning signs shall be posted at units which are currently storing or contain PCBs. Drums that contain PCBs must also have a PCB marking (labels) attached to the drum (currently this pertains to Bldg. 81/HWMU #35 only).
- 5.1.9 Changes to the configuration of the HWMU or change in type or location of safety equipment at the HWMU shall be recorded in the "Comments" section of the applicable inspection log.
- 5.1.10 If the container is asbestos (Material Type 028) verify that the container is marked with the words **"DANGER ASBESTOS CONTAINING MATERIAL."**
- 5.1.11 The HWMU Boundary marker (yellow chain, yellow/magenta rope, or fencing) shall be intact and in position.
- 5.1.12 The area in/around the HWMU shall be inspected for debris and/or trash and the unauthorized material.
- 5.1.13 Tank, Tank Car Manways , and fill pipes shall be closed and have a seal installed to prevent tampering.
- 5.1.14 Prior to the movement of RCRA waste inspect the load/unload and staging area(s) per SOP 20-C-500.
- 5.1.15 Daily inspections shall be conducted on the following HWMUs:
- A. Areas where uncharacterized material is being stored.
  - B. RCRA storage tanks (except T-5 and T-6).
  - C. Railroad tank cars.
  - D. Sumps.
  - E. Surface impoundment freeboard only.
  - F. Areas where RCRA material is stored outdoors.

## 5.0 PROCEDURE (cont.)

**NOTE 1:** Surface impoundments and landfills shall also be inspected after storms have occurred.

**NOTE 2:** Containers that are under evaluation for RCRA determination are subject to a daily inspection.

### 5.1.16 Weekly inspections shall be conducted on the following HWMUs:

- A. Inside of buildings (except for HWMU #26).
- B. RCRA storage tanks T-5 and T-6.
- C. Surface impoundments (except freeboard check).
- D. Landfills.
- E. Inactive process units.
- F. Operations equipment used in active container storage areas.
- G. HF tank car area.
- H. Areas where RCRA material was previously stored.

### 5.2 Inspecting Container Storage Areas in Active and Inactive HWMUs

#### 5.2.1 Inspect the building/pad condition using the following criteria:

- Check the structural integrity of the pad surface and curbing for cracks and structural failure.
- Check around the pad for erosion problems and dead vegetation.
- Check around the pad for signs of a release (such as a pool of liquid or stains).
- Check the condition of the ramps.
- Check the building structures for holes in the roof or walls which could allow precipitation to enter the HWMU.
- Note any discrepancies on the inspection form and report them to the supervisor.

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## 5.0 PROCEDURE (cont.)

### 5.2.2 Inspecting Secondary Containment Systems of Active and Inactive Container Storage Area HWMUs

- Verify the containment system is sealed and sufficiently impervious to contain spills, leaks or accumulated precipitation.
- Check for visible unsealed gaps, holes, cracks or breaks in the floor, curbs or dikes of the containment system.
- Note any potential breach of the containment system on the inspection form and report the observation to the Supervisor.
- Check the drainage features (including sumps, drains, and troughs) for standing or pooled liquids.
- Check for visible signs of spills (i.e., liquids or solid material on the floor and/or stains).
- After a storm look for pooled liquids, clogged drains, and/or erosion.
- Note any discrepancies on the inspection form and report them to the supervisor.

**NOTE:** Standing liquids shall be removed within 24 hours.

### 5.2.3 Inspecting Containers Within Active Container Storage Area HWMUs

- Check that lids and bungs on containers are secure.
- Check that containers are on pallets.
- Check that pallets are stacked securely and stored in a safe manner with no overhanging drums.
- Check for containers that are leaking waste, corroded, bulging and/or damaged.

## 5.0 PROCEDURES (cont.)

**NOTE:** The inspector must document on the inspection form Type I, II, and III leakers as required by the Drum Management Plan.

- Check that pallets are stored far enough from the containment edge to prevent waste escaping if a leak occurs in a container.
- Check that containers known to contain hazardous waste have a legible hazardous waste marking (label) affixed.

**NOTE:** Hazardous Waste Markings (Labels) on newly generated containers of hazardous waste will only contain the address, EPA ID Codes, and the accumulation start date until time of shipment when the remainder of the label will be completed. Backlog containers already in storage will not need the proper shipping name removed until time of shipment offsite (at that time the label may need to be changed in regards to the new HM181 regulations). However, markings (labels) may be changed as time permits.

- A three foot aisle spacing shall be maintained between pallets, curbs, and between rows of pallets within a storage bay or as specified by Waste Operations Support.

**NOTE 1:** Regulatory guidelines state that aisle spacing between rows is a minimum of 22-inches (indoor drum storage) or 24-inches (outdoor drum storage).

**NOTE 2:** This does not apply to Nuclear Material.

- Check the height of stacked drums per Attachment 2.
- Note any discrepancies on the inspection form and report them to the supervisor.

### 5.2.4 Reactivity Group Code (RGCs) Inspection

- Check that all "Active Container Storage" areas have material RGCs clearly posted at the boundary (such as end of rows, bays, or on building entrances) of each separate material RGC area.



## 5.0 PROCEDURES (cont.)

- Inspect the unit Reactivity Group Codes per the following criteria:
  - Check that containers are marked with a Reactivity Group Code.
  - Containers of incompatible material shall be separated by distance or by a physical barrier such as a dike, berm, or wall.
  - Refer to SOP 20-C-630 (Attachment 4) for the Hazardous Waste Storage Compatibility Chart.
  - Check for the separation of incompatible material.
  - For containers that have a RGC or k "ignitable" the stacking should be in accordance with NFPA 30 (See Attachment 3).
  - Note any discrepancies on the inspection form and report then to the supervisor.

### 5.3 Equipment Inspection

5.3.1 Inspect the condition of operation equipment in active container storage areas (RCRA Warehouse) per the applicable "RCRA Warehouse-Building Operation Equipment Log" (See Form 56).

5.3.2 Note any discrepancies on the inspection form and report them to the Supervisor.

### 5.4 Above Ground RCRA Storage Tank Inspections

5.4.1 Check that tank and auxiliary equipment (stand-pipes, fill pipes, vents, valves, or transfer pumps) are isolated or locked out.

5.4.2 Check that lids/manways are locked or have a tamper-proof seal installed.

5.4.3 Check the tank structure and all associated piping for deterioration (look for corrosion/erosion, leaking fixtures/seams etc.) that could affect tank integrity.

## 5.0 PROCEDURES (cont.)

5.4.4 Check the secondary containment per Item 5.2.2.

**NOTE:** Make a notation on the applicable form if no secondary containment area exists.

5.4.5 Check in and around the unit for erosion, dead vegetation and signs of material release.

5.4.6 Check the condition of overfill/spill control equipment.

**NOTE:** Make a notation on the applicable form if overfill/spill control equipment is not installed.

5.4.7 Check the operation of monitoring equipment (such as contact level indicator or high level alarm).

**NOTE:** If no monitoring equipment is installed, use lock-and-tag.

5.4.8 Check that "Hazardous Waste" signs or markings (labels) are posted on the tanks (per 40 CFR 262.34 (a) (3)).

5.4.9 Note any discrepancies on the inspection form and report them to the supervisor.

### 5.5 Surface Impoundment Inspection

5.5.1 Check that the containment dike/berm will prevent water run-off and run-on during rainfall events.

**NOTE:** The top of the dike is above the surrounding ground so that rainfall cannot overtop the dike.

5.5.2 Check around the dike/berm for dead vegetation.

5.5.3 Check the dike/berm for cracks, holes, breaks, and areas where the dike is slumped.

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## 5.0 PROCEDURES (cont.)

### 5.5.4 Check for erosion.

**NOTE:** A separate daily inspection is not required on the day the weekly inspection is conducted.

### 5.5.5 Check the impoundment freeboard as follows:

- Locate the freeboard indicator.
- Check the indicator to determine the freeboard level.
- Record the level on the "HWMU Surface Impoundment Daily Freeboard Inspection Log" (See Form 55).

### 5.5.6 Check the sides of the berm, dike, and containment basin for damage and deterioration.

### 5.5.7 Check the liners (if installed) for rips, tears, and seam separation.

### 5.5.8 Record discrepancies in the "Comment" portion of the inspection log.

### 5.5.9 Note any discrepancies on the inspection form and report them to the supervisor.

## 5.6 Inspection of Process Units

### 5.6.1 Check for visible signs of release (such as residues or dead vegetation).

### 5.6.2 Check for damage such as broken piping and dented tanks.

### 5.6.3 Check for units with components removed.

### 5.6.4 Check for open unit components.

### 5.6.5 If the unit has an associated tank or tanks, perform Items 5.4.

### 5.6.6 Note any discrepancies on the inspection form and report them to the supervisor.

## 5.0 PROCEDURES (cont.)

### 5.7 Inspection of Tank Cars

5.7.1 Check the tank for stains.

5.7.2 Check under the tank for dead vegetation or pooled liquid.

5.7.3 Check that the tank is closed.

5.7.4 Check that the tank lid/manway is locked or has an intact tamper-proof seal installed.

5.7.5 Check the tank for damage broken valves, cracks, or holes.

5.7.6 Check the secondary containment area per Item 5.2.2.

- Make a notation on the applicable form if no secondary containment area exists.

5.7.7 Note any discrepancies on the inspection form and report them to the supervisor.

### 5.8 Landfills

5.8.1 Check the dikes and trenches (run-on, run-off controls) around the unit for deterioration and/or erosion.

5.8.2 Check that wind dispersal control systems such as rubber panels and hold down pillows (if present) are operational.

5.8.3 Check the overtopping control systems for deterioration/damage (such as broken pipes or dikes).

5.8.4 Check the overtopping control system for malfunctions (such as inoperative pumps).

5.8.5 Note any discrepancies on the inspection form and report them to the supervisor.

### 5.9 Sump Inspection

5.9.1 Check the drainage features for standing liquid:

5.9.2 Check that overflow monitoring devices (such as level indicator or high level alarm) are operational.

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## 5.0 PROCEDURES (cont.)

5.9.3 Check inside the sump for foreign objects.

5.9.4 Check around the sump and the sump walls for cracks, holes, gaps, and structural defects.

5.9.5 Check outside the sump perimeter for erosion.

5.9.6 Check around the sump for dead vegetation, stains, and other signs of a release.

5.9.7 If the sump is being used as a containment, check for standing liquid. In some cases the sump will not pump dry, they almost always have some standing liquid.

5.9.8 If standing liquid is found immediately notify the Facility Owner.

**NOTE:** Notification shall be in addition to the entry on the appropriate inspection sheet.

5.9.9 Check the freeboard per Step 5.5.5.

5.9.10 Note any discrepancies on the inspection form and report them to the supervisor.

## 6.0 DEFINITIONS

6.1 Active Container Storage Areas - Units authorized to store RCRA hazardous wastes.

6.2 Bulge - A swollen area, convex distortion, or outward bend.

6.3 Corrosive - Aqueous wastes with a pH  $\leq 2$  or  $\geq 12.5$ .

6.4 Dent - A crease, depression, or hollow made by a blow or pressure or a concave distortion.

6.5 Freeboard - The distance between the top of a surface impoundment/sump content and the top of the containment dike/berm.

6.6 Hazardous Waste - A waste material listed in 40 CFR 261 or which exhibits the characteristic of ignitability, corrosivity, reactivity, or TCLP toxicity.

6.7 Hazardous Waste Management Unit (HWMU) - An identifiable area where hazardous waste is or has been treated, stored (more than 90 days), or disposed of, or systematically released into the environment.

## 6.0 DEFINITIONS (cont.)

- 6.8 Hazardous Waste Storage Facility - Any unit/area where hazardous waste is stored.
- 6.9 Hole - An opening that penetrates the container, including breach, gouge, puncture, or leak.
- 6.10 Ignitable - Liquid or non-liquid wastes capable of combustion due to heat, friction, absorption of moisture, or spontaneous chemical changes.
- 6.11 Inactive Container Storage Areas - Units that do not actually store hazardous waste, but have been identified as HWMUs.
- 6.12 Landfill - A disposal facility or part of a facility where hazardous waste is placed in or on land.
- 6.13 Inspectors - Personnel who have successfully completed the training requirements to inspect HWMUs.
- 6.14 Process Unit - Equipment that was used during the production years and is no longer active, and that meets the definition of HWMU.
- 6.15 Reactive - Wastes that respond violently when contacting another substance, forming potentially explosive mixtures or generating toxic gases with water, generating toxic gases (cyanide or sulfide) at pH between 2 and 12.5, or detonating or exploding at standard temperature and pressure or when heated under confinement.
- 6.16 Resource Conservation and Recovery Act (RCRA) - The Congressional Act which establishes safe, environmentally acceptable, strict "cradle to grave" management control and practices for specific hazardous wastes.
- 6.17 Spill - Any unplanned event that permits the entry of hazardous waste into the ground, water, or air.
- 6.18 Surface Impoundment - A topographic depression, man-made excavation, or diked area formed primarily of earthen materials designed to hold liquid hazardous waste or wastes containing free liquids.
- 6.19 Toxicity Characteristic Leaching Procedure (TCLP) - An analytical process to determine the type and concentration of hazardous contaminants in waste material.

## 7.0 APPLICABLE DOCUMENTS

### 7.1 Drivers

- 7.1.1 "Regulatory Compliance Guide (RCG)," Section C-1
- 7.1.2 "Drum Management Plan" (Dated 1990)
- 7.1.3 5480.19, "Conduct of Operations Requirements for DOE Facilities"
- 7.1.4 40 CFR 264 Series, "Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities"
- 7.1.5 40 CFR 761 Series, "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distributing in Commerce, and use Prohibitions"
- 7.1.6 49 CFR 171-173 Series, "Hazardous Materials Regulations, Department of Transportation"
- 7.1.7 OAC 3745-54 Series, "Standards for the Management of Hazardous Waste"
- 7.1.8 OAC 3745-65 Series, "Environmental Safety and Health (Directives)"
- 7.1.9 DOE 5400 Series, "Environmental Safety and Health (Directives)"
- 7.1.10 Stipulated Amendment to the Consent Decree (Signed/Dated January 22, 1993)
- 7.1.11 40 CFR Parts 265.15 and 265.174
- 7.1.12 RCRA Part B Permit (as required by the EPA)

### 7.2 References

- 7.2.1 SOP 20-C-631, "Receipt Inspection and Placement of Hazardous, Mixed, PCB and Asbestos Wastes into Storage"
- 7.2.2 SOP 20-C-606, "Hazardous Material Spill Clean-Up"
- 7.2.3 SOP 20-C-600, "Overpacking Defective Containers"
- 7.2.4 SOP 20-C-500, "Inspecting RCRA Waste Load/Unload and Staging Areas"

# ATTACHMENT 1

## HWMU IDENTIFICATION (Sheet 1 of 2)

HWMU NO.	UNIT	TYPE OF HWMU	SOP SECT.	FREQ OF INSP
1	Fire Training Facility	Landfill	5.8	Note 1
2	DELETED			
3	Waste Oil Storage In Garage	Inactive Container Storage	5.2.1 and 5.2.2	Weekly
4	Drum Storage Area Near Loading Dock (Lab Bldg)	Inactive Container Storage	5.2.1 and 5.2.2	Weekly
5	Drum Storage Area South of W-26 (Lab Bldg)	Inactive Container Storage	5.2.1 and 5.2.2	Weekly
6	Drummed HF Storage Area (In Plt 4)	Inactive Container Storage	5.2.1 and 5.2.2	Weekly
7	Drummed HF Storage Area (NW of Plant 4)	Inactive Container Storage	5.2.1 and 5.2.2	Weekly
8	Drummed HF Storage Area (S of Cooling Towers)	Inactive Container Storage	5.2.1 and 5.2.2	Weekly
9	DELETED			
10	NAR System Components	Process Unit (With Tanks)	5.6	Daily
11	Tank Farm Sump	Surface Impoundment	5.5	Note 1
12	Wheelabrator (Bldg 66)	Process Unit	5.6	Weekly
13	Wheelabrator Dust Collector (Bldg 66)	Process Unit	5.6	Weekly
14	Box Furnace	Process Unit	5.6	Weekly
15	Oxidation Furnace No. 1	Process Unit	5.6	Weekly
16	Primary Calciner	Process Unit	5.6	Weekly
17	Plt 8 East Drum Storage Pad	Active Container Storage	5.2.1 and 5.2.2	Weekly
18	Plt 8 West Drum Storage Pad	Active Container Storage	5.2.1 and 5.2.2	Weekly
19	CP Storage Warehouse (Bldg 56)	Active Container Storage	5.2.1 and 5.2.2	Weekly
20	Plant 1 Pad	Active Container Storage	5.2.1 and 5.2.2	Daily
21	HILCO Oil Recovery System	Process Unit (With Tanks)	5.6	Weekly
22	Abandoned Sump West of Pilot Plant	Sump	5.9	Weekly
23	DELETED			
24	DELETED			
25	Plant 1 Storage Bldg (Bldg 67)	Inactive Container Storage	5.2.1 and 5.2.2	Note 2
26	Detrex Still	Process Unit	5.6	Daily
27	Waste Pit No. 4	Landfill	5.8	Note 1
28	Trane Thermal Liquid Incinerator	Process Unit (with Tanks)	5.6	Daily

NOTE 1: In addition to weekly inspections, landfills and surface impoundments must also be inspected after storms. Daily inspection must be conducted on surface impoundment freeboard level.

NOTE 2: The interior of Building 67 (HWMU 25) shall be inspected monthly and the exterior inspected weekly.

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# ATTACHMENT 1

## HWMU IDENTIFICATION (Sheet 2 of 2)

HWMU NO.	UNIT	TYPE OF HWMU	SOP SECT.	FREQ OF INSP
29	Plant 8 Warehouse (Bldg 80)	Active Container Storage	5.2.1 and 5.2.2	Weekly
31	Tank T-5 (Solvent, Bulk Storage)	RCRA Storage Tank	5.4	Weekly
32	Tank T-6 (Solvent, Bulk Storage)	RCRA Storage Tank	5.4	Weekly
33	Pilot Plant Warehouse (Bldg 68)	Active Container Storage	5.2.1 and 5.2.2	Weekly
34	KC2 Warehouse (Bldg 63)	Active Container Storage	5.2.1 and 5.2.2	Weekly
35	Plant 9 Warehouse (Bldg 81)	Active Container Storage	5.2.1 and 5.2.2	Weekly
36	Storage Pad North of Plant 6	Inactive Container Storage	5.2.1 and 5.2.2	Weekly
37	Plant 6 Warehouse (Bldg 79)	Active Container Storage	5.2.1 and 5.2.2	Weekly
38	HF Tank Car (area)	Inactive Container Storage	5.2.1 and 5.2.2	Weekly
39	DELETED			
40	Bio-Surge Lagoon	Surface Impoundment	5.5	Note 1
41	Sludge Drying Beds	Surface Impoundment	5.5	Note 1
42	Waste Pit No. 5	Surface Impoundment	5.5	Note 1
43	DELETED			
44	DELETED			
45	DELETED			
46	UNH Tanks (NFS Storage Area)	RCRA Storage Tank	5.4	Daily
47	UNH Tanks (North of Plt 2)	RCRA Storage Tank	5.4	Daily
48	UNH Tanks (SE of Plt 2)	RCRA Storage Tank	5.4	Daily
49	UNH Tanks (Digestion Area, 2 Locations)	RCRA Storage Tank	5.4	Daily
50	UNH Tanks (Raffinate Bldg, 2 Locations)	RCRA Storage Tank	5.4	Daily
51	Experimental Treatment Facility (ETF)	Inactive Container Storage	5.2.1 and 5.2.2	Weekly
52	North & South Solvent Tanks (P. Plant)	RCRA Storage Tank	5.4	Weekly
53	Safe Geometry Digestion Sump	Sump	5.9	Daily
54	Thorium Nitrate Tank T2	RCRA Storage Tank	5.4	Daily

NOTE 1: In addition to weekly inspections, landfills and surface impoundments must also be inspected after storms. Daily inspection must be conducted on surface impoundment freeboard level.

**ATTACHMENT 2**  
**PALLET DRUM CAPACITY & STACKING LIMITS**

CONTAINER	DRUM/PALLET	MAXIMUM INDOOR STACKING HEIGHT	MAXIMUM OUTDOOR STACKING HEIGHT
85-Gallon Overpack	3	3 Pallets	3 Pallets
55-Gallon Drum	4	4 Pallets	3 Pallets
30-Gallon Drum	4	4 Pallets	3 Pallets
10-Gallon Pail	9	7 Pallets	3 Pallets
5-Gallon Pail	16	7 Pallets	3 Pallets
110-Gallon Overpack	2	1 Pallet on Top Pallet of Stack	3 Pallets
White Metal Boxes	N/A	3 High	3 High

**NOTE 1:** If the container has a RGC of K "Ignitable" the stacking of containers should be in accordance with NFPA 30. Refer to the MEF for the flashpoint to determine the class (i.e. < 73°F - Class I-A flammable). (See Attachment 3).

**NOTE 2:** Stacking four-high may also consist of any of the following:

- Three pallet of 55-gallon drums with either one pallet of 85-gallon drums or one pallet of 110-gallon drums on top.
- Two pallets of 55-gallon drums with two pallets of 85-gallon drums on top.

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### ATTACHMENT 3 NFPA 30

EPA RCRA Definitions		NFPA 30 Definitions	
RCRA Ignitable Liquid (D001)	Flash Point < 140°F	NFPA Class I-A Flammable Liquid	Flash Point < 73°F Boiling Point < 100°F
		NFPA Class I-B Flammable Liquid	Flash Point < 73°F Boiling Point ≥ 100°F
		NFPA Class I-C Flammable Liquid	Flash Point ≥ 73°F and < 100°F
		NFPA Class II Combustible Liquid	Flash Point ≥ 100°F and < 140°F
		NFPA Class III-A Combustible Liquid	Flash Point ≥ 140°F and < 200°F
		NFPA Class III-B Combustible Liquid	Flash Point ≥ 200°F

#### Indoor Unprotected Storage of Liquids in Containers

Container Storage			
Class	Max. Pile Height (ft)	Max. Quant. per Pile (gal)	Max. Total Quant. (gal)*
IA	5	660	660
IB	5	1,375	1,375
IC	5	2,750	2,750
II	10	8,250	8,250
IIIA	15	27,500	27,500
IIIB	15	55,000	55,000

HWMU 1  
Fire Training Facility

Landfill

Inspector's Name:		Badge #:		Date:	Time:
Facility Owner's Signature:				Date:	Time:
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	Emergency & Prior To Entry Contact				
3	Boundary Markers: yellow chain				
4	Area Condition				

Comments:

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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Issue Date: 09-07-94

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**IWMU 3**  
Waste Oil Storage In Garage

**Inactive**  
Container Storage

Inspector's Name:		Badge #:	Date:	Time:
Facility Owner's Signature:			Date:	Time:

Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	Emergency & Prior To Entry Contact				
3	Boundary Markers: (Chain)				
4	Bldg Condition				

Comments:

Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 4  
Drum Storage Area Near Loading Dock (Lab)Inactive  
Container Storage

Inspector's Name:		Badge #:		Date:	Time:
Facility Owner's Signature:				Date:	Time:
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	Emergency & Prior To Entry Contact				
3	Boundary Markers: (Chain, Rope, etc.)				
4	Area Condition				

Comments:

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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Issue Date: 09-07-94

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**HWMU 5**  
**Drum Storage Area South Of W-26 (Lab)**

**Inactive**  
**Container Storage**

Inspector's Name:		Badge #:		Date:	Time:
Facility Owner's Signature:				Date:	Time:
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Boundary Markers: (Chain)				
5	Area Condition				
6	Safety Equipment				

Comments: \_\_\_\_\_

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**Distribution:**

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
 RCRA Operating Records

RCRA Operating Records Signature:

Date:

HWMU 6  
Drummed HF Storage Area (In Plant 4)Inactive  
Container Storage

Inspector's Name:		Badge #:		Date:	Time:
Facility Owner's Signature:				Date:	Time:
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	Emergency & Prior To Entry Contact				
3	Boundary Markers: (Chain)				
4	Bldg Condition				

Comments:

Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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**HWMU 7**  
**Drummed HF Storage Area (NW of Plt 4)**

**Inactive**  
**Container Storage**

Inspector's Name:		Badge #:		Date:	Time:
Facility Owner's Signature:				Date:	Time:
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	Emergency & Prior To Entry Contact				
3	Boundary Markers: (Chain, Rope, etc.)				
4	Area Condition				

Comments: \_\_\_\_\_

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Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
 RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 8  
Drummed HF Storage Area (S. Of Cooling-Towers)Inactive  
Container Storage

Inspector's Name:		Badge #:		Date:	Time:
Facility Owner's Signature:				Date:	Time:
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	Emergency & Prior To Entry Contact				
3	Boundary Markers: (Chain)				
4	Area Condition				

Comments:

Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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Issue Date: 09-07-94

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**HWMU 10**  
**NAR System Components**  
 (Sheet 1 of 2)

**Process Unit**  
**With Tanks**

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	

Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Tanks: -Danger-Authorized Personnel Only -No Smoking or Open Flame -Emergency Contact				
2	Overfill/Spill Control Equipment				
3	Corrosion or Release of Waste				
4	Monitoring Equipment In Place (Content Level)				
5	Surrounding Area & Unit Integrity				
6	Condition Of Secondary Containment				
7	Safety Equipment				
8	Coolers E3E-210 & E3E-211: <u>Signs:</u> -Danger-Authorized Personnel Only -No Smoking Or Open Flame -Emergency Contact				
9	Corrosion Or Release Of Waste				
10	Surrounding Area & Unit Integrity				
11	Weir Box F3E-207, 213, 215, & 218: <u>Signs:</u> -Danger-Authorized Personnel Only -No Smoking Or Open Flame -Emergency Contact				
12	Corrosion Or Release Of Waste				
13	Surrounding Area & Unit Integrity				
14	Spill Response Equipment				

Comments: \_\_\_\_\_

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**Distribution:**

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
 RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 10  
NAR System Components  
(Sheet 2 of 2)Process Unit  
With Tanks

Inspector's Name:		Badge #:		Date:	Time:
Facility Owner's Signature:				Date:	Time:
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
15	Denigration Pot G3E-207: Signs: -Danger-Authorized Personnel Only -No Smoking or Open Flame -Emergency Contact				
16	Overfill/Spill Control Equipment				
17	Monitoring Equipment In Place (Content Level)				
18	Surrounding Area & Unit Integrity				
19	Condition Of Secondary Containment				
20	Safety Equipment				
21	All Components Have Boundary Markers (Chain, Rope, etc.)				
22	Emergency & Spill Response Equipment				
23	Manway/Fill Pipe Seals Unbroken				

Comments:

Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 11  
Tank Farm SumpSurface  
Impoundment

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	Emergency & Prior to Entry Contact				
3	Boundary Markers (Chain)				
4	Sump Condition (Cracks, Leaks, Or Material In Sump)				
5	Sufficient Freeboard (2 feet minimum)				
6	Estimated Freeboard Level: _____ (Ft.)				
7	Area Condition				
8	Safety Equipment				
9	Evidence of Release				

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:

Date:

HWMU 12  
Wheelabrator (Bldg 66)Process  
Unit

Inspector's Name:		Badge #:		Date:	Time:
Facility Owner's Signature:				Date:	Time:
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior to Entry Contact				
4	Boundary Markers (Chain)				
5	Unit Condition				
6	Visible Signs Of Material Release				
9	Safety Equipment				

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 13  
Wheelabrator Dust Collector (Bldg 66)Process  
Unit

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior to Entry Contact				
4	Boundary Markers (Chain)				
5	Unit Condition				
6	Visible Signs Of Material Release				
9	Safety Equipment				

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:

Date:

HWMU 14  
Box FurnaceProcess  
Unit

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior to Entry Contact				
4	Boundary Markers (Chain)				
5	Unit Condition				
6	Visible Signs Of Material Release				
7	Safety Equipment				
8	Spill Response Equipment				

Comments:

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 15  
Oxidation Furnace #1Process  
Unit

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	

Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior to Entry Contact				
4	Boundary Markers (Chain)				
5	Unit Condition				
6	Visible Signs Of Material Release				
7	Safety Equipment				
8	Spill Response Equipment				

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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IIWMU 16  
Primary CalcinerProcess  
Unit

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior to Entry Contact				
4	Boundary Markers (Chain)				
5	Unit Condition				
6	Visible Signs Of Material Release				
7	Safety Equipment				
8	Spill Response Equipment				

Comments:

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 17  
Pit 8 East Drum Storage Pad

Active  
Container Storage

Inspector's Name:	Badge #:	Date:	Time:
Facility Owner's Signature:		Date:	Time:

Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior to Entry Contact				
4	Boundary Markers (Chain)				
5	Pad Condition				
6	Area Condition				
7	Safety Equipment				
8	Visible Signs Of Material Release				

Comments: \_\_\_\_\_

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Distribution:  
Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 18  
Pit 8 West Drum Storage PadActive  
Container Storage

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior to Entry Contact				
4	Boundary Markers (Chain, Rope, etc.)				
5	Pad Condition				
6	Area Condition				
7	Safety Equipment				
8	Visible Signs Of Material Release				

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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IIWMU 19  
CP Storage Warehouse (Bldg 56)Active  
Container Storage

Inspector's Name:		Badge #:		Date:		Time:	
Facility Owner's Signature:				Date:		Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed		
1	Signs: Danger-Authorized Personnel Only						
2	No Smoking or Open Flame						
3	Emergency & Prior to Entry Contact						
4	Building Condition						
5	Condition of Secondary Containment						
6	Emergency & Spill Response Equipment						
7	Compatibility Codes						
8	Container Management						
9	Conditions Of Drums (Evidence Of Leaks Or Spills)						

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 20  
Plant 1 PadActive  
Container Storage

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior to Entry Contact				
4	Building Condition				
5	Condition of Secondary Containment				
6	Emergency & Spill Response Equipment				
7	Compatibility Codes				
8	Container Management				
9	Conditions Of Drums (Evidence Of Leaks Or Spills)				
9	Boundary Markers (Chains, Rope, etc.)				

Comments:

Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 21  
HILCO Oil Recovery System  
(Sheet 1 of 2)Process Units  
(With Tanks)

Inspector's Name:		Badge #:		Date:		Time:	
Facility Owner's Signature:				Date:		Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed		
1	System (Diked Area) Signs: Danger-Authorized Personnel Only						
2	No Smoking or Open Flame						
3	Emergency & Prior to Entry Contact						
4	Tanks: Dirty & Clean Oil; East & West Dirty Sumps; 2 Heaters & 2 Vaporizers Overfill/Spill Control Equipment						
5	Corrosion Or Release Of Waste						
6	Tanks' Integrity (Corrosion/Damage)						

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:

Date:

HWMU 21  
HILCO Oil Recovery System  
(Sheet 2 of 2)Process Units  
(With Tanks)

Inspector's Name:		Badge #:		Date:		Time:	
Facility Owner's Signature:				Date:		Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed		
7	Filters: (2-Rough & 2-Polishing) Corrosion Or Release Of Waste						
8	Filters' integrity (Corrosion/Damage)						
9	Stokes & Booster Pumps (14) Corrosion Or Release Of Waste						
10	Pumps' integrity (Corrosion/Damage)						
11	Condition of Secondary Containment						
12	Emergency & Spill Response Equipment						
13	Boundary Markers (Chain, Rope, etc.)						
14	All Tank Fill Pipes/Manways Have Unbroken Seals						

Comments:

Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 22  
Abandoned Sump West Of Pilot Plant

Sump

Inspector's Name:		Badge #:		Date:		Time:	
Facility Owner's Signature:				Date:		Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed		
1	Signs: Danger-Authorized Personnel Only						
2	Emergency & Prior to Entry Contact						
3	Boundary Markers (Chain, Rope, etc.)						
4	Area Condition						

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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IIWMU 25  
Plant 1 Storage Building (Bldg 67)Inactive Contain  
Storage

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior to Entry Contact				
4	Boundary Markers (Chain)				
5	Building Condition				
6	Safety Equipment				

Comments:

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 26  
Detrex StillProcess  
Unit

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior to Entry Contact				
4	Boundary Markers (Chain, Rope, etc.)				
5	Unit Condition				
6	Visible Signs of Material Release				
7	Safety Equipment				
8	Spill Response Equipment				

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 27  
Waste Pit No. 4

Landfill

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only -No Smoking or Open Flame				
2	Emergency & Prior to Entry Contact				
3	Boundary Markers (Chain)				
4	Condition of Soil at Edge of FML (soil erosion should not expose FML below grade)				
5	Condition of Anchor Trenches (FML should be securely anchored in trench)				
6	Condition of Field Seams (tears)				
7	Condition of Factory Seams (tears)				
8	Condition of FML Panels (holes)				
9	Condition of Hold-Down Pillows (secure)				

Comments:

Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 28  
Trane Thermal Liquid IncineratorProcess Unit  
(With Tanks)

Inspector's Name:		Badge #:	Date:	Time:
Facility Owner's Signature:			Date:	Time:

Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Boundary Markers (Chain, Rope, etc.)				
5	Area Condition (Evidence of Leaks)				
6	Bldg. 39A Condition				
7	Tank F3E-406: Overfill/Spill Control Equipment				
8	Secondary Containment Condition				
9	Tank Condition or Release Of Waste				
10	Manway Seal				
11	Monitoring Equipment				
12	Safety Equipment				

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:

Date:

HWMU 29  
Plant 8 Warehouse (Bldg 80)Active  
Container Storage

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Building Condition				
5	Condition of Secondary Containment				
6	Emergency & Spill Response Equipment				
7	Compatibility Codes				
8	Container Management				
9	Conditions of Drums (Evidence of Leaks/Spills)				

Comments:

Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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Issue Date: 09-07-94

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**HWMU 31**  
**Tank T-5 (Solvent, Bulk Storage)**

**RCRA**  
**Storage Tank**

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	

Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Overfill/Spill Control Equipment				
5	Corrosion Or Release Of Waste				
6	Surrounding Area and Unit Integrity				
7	Secondary Containment Condition				
8	Safety Equipment				
9	Manway Seal Unbroken				
10	Boundary Markers (Chains)				

Comments: \_\_\_\_\_

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Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:

RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 32  
Tank T-6 (Solvent, Bulk Storage)RCRA  
Storage Tank

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Overfill/Spill Control Equipment				
5	Corrosion Or Release Of Waste				
6	Surrounding Area and Unit Integrity				
7	Secondary Containment Condition				
8	Safety Equipment				
9	Manway Seal Unbroken				
10	Boundary Markers (Chains)				

Comments:

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:

Date:



HWMU 33  
Pilot Plant Warehouse (Bldg 68)Active  
Container Storage

Inspector's Name:		Badge #:		Date:	Time:
Facility Owner's Signature:				Date:	Time:
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Building Condition				
5	Condition Of Secondary Containment				
6	Emergency & Spill Response Equipment				
7	Compatibility Codes				
8	Container Management				
9	Conditions of Drums (Evidence Of Leaks/Spills)				

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 34  
KC-2 Warehouse (Bldg 63)Active  
Container Storage

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Building Condition				
5	Condition Of Secondary Containment				
6	Emergency & Spill Response Equipment				
7	Compatibility Codes				
8	Container Management				
9	Conditions of Drums (Evidence Of Leaks/Spills)				
10	Safety Equipment				

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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6603 - 4

HWMU 35  
Plant 9 Warehouse (Bldg 81)

Active  
Container Storage

Inspector's Name:	Badge #:	Date:	Time:
Facility Owner's Signature:		Date:	Time:

Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Building Condition				
5	Condition Of Secondary Containment				
6	Emergency & Spill Response Equipment				
7	Compatibility Codes				
8	Container Management				
9	Conditions of Drums (Evidence Of Leaks/Spills)				

Comments: \_\_\_\_\_  
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Distribution:  
Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 36  
Storage Pad North of Plant 6Inactive  
Container Storage

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	Emergency & Prior To Entry Contact				
3	Boundary Markers (Chain)				
4	Area Condition				

Comments:

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 37  
Plant 6 Warehouse (Bldg 79)Active  
Container Storage

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Building Condition				
5	Condition Of Secondary Containment				
6	Spill Response Equipment				
7	Compatibility Codes				
8	Container Management				
9	Conditions of Drums (Evidence Of Leaks/Spills)				
10	Safety Equipment				

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:

Date:

HWMU 38  
HF Tank Car AreaInactive  
Container Storage

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	Emergency & Prior To Entry Contact				
3	Boundary Markers (Chain)				
4	Area Condition				

Comments:

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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6703

HWMU 40  
Bio-Surge LagoonSurface  
Impoundment

Inspector's Name:		Badge #:		Date:		Time:	
Facility Owner's Signature:				Date:		Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed		
1	Signs: -Danger-Authorized Personnel Only -No Smoking or Open Flame						
2	Emergency & Prior To Entry Contact						
3	Boundary Markers (Chain)						
4	Unit Condition (Dike/Liner)						
5	Sufficient Freeboard (2 Ft. Minimum)						
6	Estimated Freeboard Level: _____ (Ft.)						
7	No Sudden Drops In Level Of Contents						
8	Area Condition						
9	Safety Equipment						
10	Visual Evidence Of Material Release						

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 41  
Sludge Drying BedsSurface  
Impoundment

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	Emergency & Prior To Entry Contact				
3	Boundary Markers (Chain, Rope, etc.)				
4	Unit Condition (Dike/Liner)				
5	Sufficient Freeboard (2 Ft. Minimum)				
6	Estimated Freeboard Level: _____ (Ft.)				
7	No Sudden Drops In Level Of Contents				
8	Area Condition				
9	Safety Equipment				
10	Visual Evidence Of Material Release				

Comments: \_\_\_\_\_  
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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature: _____	Date: _____
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6703

HWMU 42  
Waste Pit No. 5Surface  
Impoundment

Inspector's Name:		Badge #:		Date:		Time:	
Facility Owner's Signature:				Date:		Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed		
1	Signs: -Danger-Authorized Personnel Only -No Smoking or Open Flame						
2	Emergency & Prior To Entry Contact						
3	Boundary Markers (Chain)						
4	Unit Condition (Dike/Liner)						
5	Sufficient Freeboard (2 Ft. Minimum)						
6	No Sudden Drops In Level Of Contents						
7	Area Condition						
8	Safety Equipment						
9	Visual Evidence Of Material Release						
10	Estimated Freeboard Level	Feet: _____ Inches: _____					
11	Slurry Tank For MAWS System: Corrosion or Release Of Waste						
12	Monitoring Equipment In Place (content level)						
13	Secondary Containment Condition						
14	Manway/Fillpipe Seals Unbroken						
15	Emergency and Spill Response Equipment						

Comments: \_\_\_\_\_

NOTE: Items 1 through 9 - Weekly inspection required  
Items 10 through 15 - Daily inspection required

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 46  
UNH Tanks (NFS Storage Area)  
(Tanks F2-605, 606, 608, 02-E004A-Tnk)

RCRA  
Storage Tank

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	-No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Overfill/Spill Control Equipment				
5	Corrosion Or Release Of Waste				
6	Monitoring Equip. In Place (Content Level)				
7	Surrounding Area And Unit Integrity				
8	Secondary Containment Condition				
9	Safety Equipment				
10	Manway Seal Unbroken				
11	Boundary Markers (Chains)				

Comments:

Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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6703

HWMU 47  
UNH Tanks (North of Plt 2)  
(Tanks F2E-5, F2E-6, & F2E-8)RCRA  
Storage Tank

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	-No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Overfill/Spill Control Equipment				
5	Corrosion Or Release Of Waste				
6	Monitoring Equip. In Place (Content Level)				
7	Surrounding Area And Unit Integrity				
8	Secondary Containment Condition				
9	Safety Equipment				
10	Manway Seal Unbroken				
11	Boundary Markers (Chains)				

Comments: \_\_\_\_\_

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## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 48  
UNH Tanks (S.E. Of Pit 2)  
(Tanks F3E-223)RCRA  
Storage Tank

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	-No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Overfill/Spill Control Equipment				
5	Corrosion Or Release Of Waste				
6	Monitoring Equip. In Place (Content Level)				
7	Surrounding Area And Unit Integrity				
8	Secondary Containment Condition				
9	Safety Equipment				
10	Manway Seal Unbroken				
11	Boundary Markers (Chains)				

Comments:

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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6703

HWMU 49  
UNH Tanks (Digestion Area, 2 Locations)  
(Tanks D1-1,2,4,7,10 F1-1,25,26)RCRA  
Storage Tank

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	-No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Overfill/Spill Control Equipment				
5	Corrosion Or Release Of Waste				
6	Monitoring Equip. In Place (Content Level)				
7	Surrounding Area And Unit Integrity				
8	Secondary Containment Condition				
9	Safety Equipment				
10	Manway Seal Unbroken				
11	Boundary Markers (Chains)				

Comments:

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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IIWMU 50  
UNH Tanks (Raffinate Bldg, 2 Locations)  
(Tanks F1-301, 302, 303 & 308)

RCRA  
Storage Tank

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	-No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Overfill/Spill Control Equipment				
5	Corrosion Or Release Of Waste				
6	Monitoring Equip. In Place (Content Level)				
7	Surrounding Area And Unit Integrity				
8	Secondary Containment Condition				
9	Safety Equipment				
10	Manway Seal Unbroken				
11	Boundary Markers (Chains)				

Comments: \_\_\_\_\_  
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Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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6703

HWMU 51  
Experimental Treatment Facility (ETF)Inactive  
Container Storage

Inspector's Name:		Badge #:		Date:		Time:	
Facility Owner's Signature:				Date:		Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed		
1	Signs: -Danger-Authorized Personnel Only						
2	Emergency & Prior To Entry Contact						
3	Boundary Markers (Chain, Rope, etc.)						
4	Unit Condition						

Comments:

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 52  
North & South Solvent Tanks (P. Pit)RCRA  
Storage Tank

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	-No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Overfill/Spill Control Equipment				
5	Corrosion Or Release Of Waste				
6	Surrounding Area And Unit Integrity				
7	Secondary Containment Condition				
8	Safety Equipment				
9	Manway Seal Unbroken				
10	Boundary Markers (Chains)				

Comments:

Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:

Date:



6703

HWMU 53  
Safe Geometry Digestion Sump

Sump

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: -Danger-Authorized Personnel Only				
2	-No Smoking or Open Flame				
3	Emergency & Prior To Entry Contact				
4	Boundary Markers (Chain, Rope, etc.)				
5	Sump Condition (Cracks, Leaks, Or Material In Sump)				
6	Area Condition (Dead Vegetation/Signs of A Release)				
7	Safety Equipment				
8	Ancillary Equipment (Tanks & Pumps) Release of Waste				
9	Monitoring Equipment Content Level				
10	Manway/Fill Pipe Seals Unbroken				
11	Condition of Secondary Containment				

Comments:

Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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HWMU 54  
Thorium Nitrate Tank T2RCRA  
Storage Tank

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	
Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Signs: <ul style="list-style-type: none"><li>• Danger-Authorized Personnel Only</li><li>• No Smoking, Open Flame</li><li>• Facility Owner and Emergency Information</li></ul>				
2	Boundary Markers (Chain)				
3	Condition of Area				
4	Safety Equipment				
5	Secondary Containment Condition				
6	Emergency and Spill Response Equipment				
7	Evidence of Corrosion, Leakage or Release of Waste				
8	Manway/Fillpipe Seal Unbroken				

Comments:

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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6703

HWMU Surface Impoundment  
Daily Freeboard Inspection Log

Inspector's Name:		Badge #:		Date:	Time:
Facility Owner's Signature:				Date:	Time:
HWMU No.	HWMU Location	Time	Freeboard Level (Feet/Inches)	Acceptable	Corrective Actions To Be Completed
40	Bio-Surge Lagoon				
41	Sludge Drying Beds				
42	Waste Pit 5 Slurry Tank For MAWS System: <ul style="list-style-type: none"><li>• Corrosion or Release of Waste</li><li>• Monitoring Equipment In Place (Content Level)</li><li>• Secondary Containment Condition</li><li>• Manway/Fillpipe Seals Unbroken</li></ul>				

Comments:

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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FEMP  
RCRA WAREHOUSE - BUILDING \_\_\_\_\_ OPERATION EQUIPMENT LOG  
(Sheet 1 of 2)

Inspector's Name:		Badge #:		Date:	Time:
Facility Owner's Signature:				Date:	Time:

Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
1	Procedures Available For All Equipment Used and Processes Conducted in RCRA Warehouse				
2	All PM Inspections Conducted Per Applicable Procedure				
3	Scales: Daily PM Inspection Conducted				
4	Current Calibration Sticker Present				
5	Platform Guard In Place				
6	Printer Operational				
7	Check Weights Serviceable (Have Current PM Date)				
8	Forktruck: Daily PM Inspection Conducted				
9	Form FMPC-OPR-2414 Completed				
10	Current PM Card Present				
11	Hoist, Crane: Daily PM Inspection Conducted				
12	Form FMPC-H&S-2423 Completed				
13	Current PM Tag Present				
14	Equipment Weight Capacity Not Exceeded By Load Weight				

Comments:

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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RECORD OF ISSUE/REVISIONS

<u>DATE</u>	<u>REV. NO.</u>	<u>DESCRIPTION AND AUTHORITY</u>
11-28-90	0	Procedure required for inspecting RCRA storage units per Request No. P90-280, initiated by K. Nuhfer.
02-12-91	1	Revised to clearly identify titles of the inspection form per Request No. P91-026, initiated by J. Ogg.
09-17-91	0	Reissued to inspect HWMUs in service and out of service per Request No. P91-278, initiated by J. Carr.
05-28-92	0	Reissued to update current operations per Request No. P92-125, initiated by T. Parmer.
12-15-92	0	Reissued to incorporate new forms and update HWMUs per Request No. P92-179, initiated by T. Parmer.
02-07-93	1	Revised to incorporate CIO C92-124 per Request No. P92-247, CIO C92-129 per Request No. P92-310, and update to conform with Procedure Program requirements.
09-16-93	2	Revised to incorporate CIO C93-004 per Request No. P93-1034.
04-05-94	3	Revised to incorporate CIO C93-753 per Request P94-0246.
09-07-94	0	Reissue of document to update to current requirements per Request No. P94-0399, initiated by J. Baarlaer. The document format does not conform to current RSO SOP format per PO-D-026, format changed at the request of 20-C-616 document owner.

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FEMP  
RCRA WAREHOUSE - BUILDING \_\_\_\_\_ OPERATION EQUIPMENT LOG  
(Sheet 2 of 2)

Inspector's Name:		Badge #:	Date:	Time:	
Facility Owner's Signature:			Date:	Time:	

Item No.	Item Description	Acceptable	Unacceptable	Observations/Corrective Actions To Be Completed	Date Action Completed
15	Hand Stacker/Pallet Jack: Daily PM Inspection Conducted				
16	Form FMPC-SAML-2415 Completed				
17	Current PM Tag Present				
18	Drum Lift & UHLD: Current PM Tag Present				
19	Daily PM Inspection Conducted (Damaged/Missing Hardware)				
20	Flammable Liquid Cabinets: Positioned On Level Surface				
21	Vent Port Capped (Unless Using A Vent Fan Adapter)				
22	Cabinet Properly Grounded				
23	No Combustible Materials Stored In/Around Cabinets				

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Distribution:

Facility Owner: Facility Owner reviews, signs, and distributes log to:  
RCRA Operating Records

RCRA Operating Records Signature:	Date:
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**FEMP**  
**MIXED AND HAZARDOUS WASTE DISPOSAL**  
**MULTIPLE TANK/CONTAINER INSPECTION FORM**

**6703**

PROJECT NAME: \_\_\_\_\_

PROJECT ENGINEER: \_\_\_\_\_

Item	Item Description	Acceptable	Unacceptable	N/A	Observations/Corrective To Be Completed	Actions	Date Action Completed
<b>TEMPORARY TANK STORAGE: List Tank No.'s and Location(s):</b>							
1	Overfill/Spill Control Equipment:						
2	Corrosion or Release of waste:						
3	Monitoring Equipment In Place (Content Level):						
4	Surrounding Area & Unit Integrity:						
5	Secondary Containment Condition:						
6	Manway/Fill Pipe Seals Unbroken:						
7	Sump pump switch position - should be on "off" setting:						
<b>DRUM STORAGE AREA(S): Attach list of inventory No.'s and staging area location(s):</b>							
1	Corrosion, holes, dents, bulges, or leaks:						
2	All drums closed except when adding or removing waste:						
3	Spill control equipment:						
4	Secondary containment condition:						
<b>TANKER TRUCK AND TRAILER: List location:</b>							
1	Corrosion, holes, dents, bulges, or leaks:						
2	Lid/Manway closed except when adding or removing waste:						
3	Spill control equipment:						
4	Secondary containment condition:						

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**NOTE: DRUMS/STAGING AREAS, AND TANKER TRUCK MUST BE INSPECTED WEEKLY**  
**TEMPORARY STORAGE TANKS MUST BE INSPECTED DAILY**

Inspector's Signature: _____	Date: _____
Hazardous Waste Compliance Signature: _____	Date: _____

**000086**

Fernald Environmental Management Project WESTINGHOUSE ENVIRONMENTAL MANAGEMENT COMPANY OF OHIO SITE SERVICES DOCUMENT PROGRAM		Page 1 of 8 Revision No. 0 Revision Date: N/A
SITE SERVICES PROCEDURE	HANDLING WASTE MATERIALS WITH THE INDUSTRIAL VACUUM LOADER TRUCK (SUPERSUCKER)	SOP 43-C-413
		Area: Utilities
Authorization: L. Pennington, Utilities Manager		Supersedes: None Issue Date: 11-09-92

## 1.0 PURPOSE

The purpose of this document is to establish the procedure for using the Industrial Vacuum Loader Truck (Supersucker) for handling waste liquids, liquid sludges, and solids.

## 2.0 APPLICABILITY

This procedure is applicable to using the Supersucker for removing waste materials from facilities, units, and processes.

## 3.0 RESPONSIBILITIES

### 3.1 Supervisors shall be responsible for the following:

- 3.1.1 Ensuring that the Supersucker is cleaned and maintained in operating condition.
- 3.1.2 Contacting the requestor to ensure that waste characterization analysis has been performed per a completed Material Evaluation Form.
- 3.1.3 Ensuring that material to be picked up is compatible with material contained in the collector body (if any).
- 3.1.4 Contacting Radiological Safety or Industrial Hygiene (when required) prior to starting a task to determine required protective equipment.
- 3.1.5 Providing operators with the protective equipment specified by IRS&T.
- 3.1.6 Ensuring that required protective equipment is used by the operators during the task.
- 3.1.7 Reporting exceptional circumstances and notifying the Assistant Emergency Duty Officer (AEDO) of the circumstances.
- 3.1.8 Ensuring that personnel are qualified per the established training requirements identified by the Department/Staff Manager.
- 3.1.9 Ensuring that a "Radiation Work Permit" is posted when required.
- 3.1.10 Obtaining a "Confined Space Entry Permit" when the collector body is to be entered for cleaning or repair.
- 3.1.11 Conducting a preliminary check of the area and material to be handled to determine safety measures and personal protective equipment (PPE).

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### 3.0 RESPONSIBILITIES (cont.)

- 3.1.12 Coordinating with Facilities and Materials Evaluation (F&ME) or Environmental Compliance and IRS&T, to determine requirements for the solvent wash process and the selection of solvents for triple rinsing of Supersucker collector body after moving RCRA and/or hazardous waste.
- 3.1.13 Arranging for transportation and disposal/storage of filled containers.
- 3.1.14 Reviewing applicable Material Safety Data Sheets (MSDS) with operators.
- 3.1.15 Estimating the volume of material to be picked up and specifying the number of empty containers required.

### 3.2 Operators shall be responsible for the following:

- 3.2.1 Complying with this procedure.
- 3.2.2 Reporting unusual occurrences to supervision or, in the supervisors absence, the AEDO.

### 4.0 DEFINITIONS

- 4.1 Container - Any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

### 5.0 APPLICABLE DOCUMENTS

#### 5.1 Drivers

- 5.1.1 PO-D-026, "Site Services Document Program"
- 5.1.2 FEMP Conduct of Operations

#### 5.2 References

- 5.2.1 SOP 20-C-101, "Moving and Storing Nuclear Materials"
- 5.2.2 SOP 20-C-102, "Nuclear Safety for Receiving, Storing, Repackaging and Moving Enriched Uranium Materials < 20% 235U from Offsite"
- 5.2.3 SOP 20-C-605, "Control of Satellite Accumulation Areas"
- 5.2.4 SOP 20-C-606, "Hazardous Materials Spill Clean-up"
- 5.2.5 SOP 20-C-904, "General Nuclear Safety Requirements"
- 5.2.6 SOP 43-C-414, "Industrial Vacuum Loader Truck (Supersucker) Operation"
- 5.2.7 PP-0314, "Packaging on On-Site Movement and Off-Site Shipment of Material"

### 6.0 INDUSTRIAL HEALTH AND SAFETY REQUIREMENTS

- 6.1 A defined safety system is not involved.

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**6.0 INDUSTRIAL HEALTH AND SAFETY REQUIREMENTS (cont.)**

- 6.2 Leather-palm gloves shall be worn when handling drums, locking rings, sharp or abrasive material, or when using hand tools.
- 6.3 Chemical cover goggles and/or face shields, neoprene gloves, and aprons shall be worn when handling caustic material, acid slurries, or liquids.
- 6.4 If necessary, a "Radiation Work Permit" shall be posted at the area to be cleaned prior to performing removal operations.
- 6.5 Releases of hazardous waste shall be reported to the supervisor and handled immediately per procedure SOP 20-C-606.
- 6.6 Material shall be handled per the requirements of SOP 20-C-101, SOP 20-C-102, SOP 20-C-904, and 20-C-605.
- 6.7 Non-compatible materials shall not be mixed in the Supersucker collector body.
- 6.8 Safety glasses shall be worn at all times, except while in the cab of the truck and when wearing cover goggles or full face respirators.
- 6.9 Operators shall have reviewed and be familiar with the MSDS, for hazardous materials/chemicals that may be used or encountered.
- 6.10 Materials outside the perimeter fence shall be handled per the requirements of PP-0314.
- 6.11 Any circumstance which could have resulted in an intake of radioactive materials by inhalation, ingestion or absorption shall immediately be reported to a supervisor. The supervisor shall immediately report the circumstance of possible radioactive materials intake to IRS&T Radiological Safety Section for evaluation. The involved personnel shall report to the Urine Sampling Station at the end of their shift to complete a Incident Investigation Report (IIR) (Form No. FMPC-ES&H-1458), and submit an incident urine sample. The involved personnel shall also report to the Urine Sampling Station at the start of their next shift to submit a followup urine sample. Employees are responsible for complying with additional requirements as specified by the Radiological Safety Section.

**7.0 PROCEDURE****7.1 General**

- 7.1.1 Warnings, cautions, and notes precede the Item or Step to which they apply.
- 7.1.2 The Supersucker shall be empty and clean before starting a new task.
- 7.1.3 Spills shall be handled per Item 7.5.
- 7.1.4 A supervisor shall accompany the Supersucker on assigned tasks.
- 7.1.5 The Supersucker shall be operated per SOP 43-C-414.

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## 7.0 PROCEDURE (cont.)

### 7.2 Handling Non-RCRA, Non-Hazardous Material

#### 7.2.1 Check the inside of the Supersucker collector body.

**NOTE:** The supervisor shall direct that the body be cleaned or to proceed with the current task.

##### 7.2.1.1 If the collector body contains material or residues, notify the supervisor.

##### 7.2.2 Prepare Supersucker to begin operations per SOP 43-C-414.

##### 7.2.3 When the collector body is full or the job is completed, empty (per SOP 43-C-414) the collector body into the containers specified by the supervisor.

##### 7.2.4 Dispose of, or relocate, the containers as directed by the Utilities Supervisor.

**NOTE 1:** Unless the Utilities Supervisor specifies otherwise, non-hazardous residues and rinsings may be placed in the same containers and storage areas as bulk materials.

**NOTE 2:** Non-regulated residues may be disposed of, without concern for the weight or volume, by rinsing the collector body into the general sump.

##### 7.2.5 Using a water hose, rinse the collector body and place liquid in containers or drain into the general sump.

**NOTE:** RCRA material shall be removed from the collector body within 90 days of completion of task to remain unregulated equipment.

### 7.3 Handling Regulated RCRA/Listed Hazardous Waste Material

#### 7.3.1 Check the Supersucker collector body for material or residues.

**NOTE:** The supervisor shall direct that the collector body be cleaned or to continue with the task.

##### 7.3.1.1 If found, notify the supervisor.

##### 7.3.2 Obtain the empty containers specified by the supervisor.

**NOTE:** The supervisor shall contact the requestor to obtain container identification data.

##### 7.3.3 Label the containers with information furnished by the supervisor.

**6703****7.0 PROCEDURE (cont.)**

**NOTE:** The supervisor shall schedule the task to permit containers of hazardous waste to be transferred to a RCRA warehouse before the end of the shift.

**7.3.4 Begin operations with the Supersucker (Refer to SOP 43-C-414).**

**NOTE 1:** After the collector body has been emptied, the level of residue remaining shall not exceed one inch or 0.3%, by weight, of the capacity.

**NOTE 2:** Usually, 0.3% of the capacity of the collector body will equal 100 pounds of material, depending on the specific gravity.

**7.3.5 Empty the Supersucker tank into the prepared containers, per SOP 43-C-414.**

**NOTE:** The supervisor shall specify action for removing additional material.

**7.3.5.1 If the collector body can not be emptied below 0.3% of the capacity, notify the supervisor.**

**NOTE:** The rinsate shall be disposed of per the same requirements applicable to the material that was removed from the body.

**7.3.6 Rinse the collector body.**

**NOTE:** The supervisor shall ensure that containers of hazardous waste are transferred to a RCRA warehouse before the end of the shift.

**7.3.7 Notify the supervisor that containers are ready for transport.**

**NOTE:** Acutely-hazardous waste shall be removed from the collector body within 90 days of completion of a task.

**7.4 Handling Regulated Acutely-Hazardous Waste Material****7.4.1 Check the Supersucker collector body for material or residues.**

**NOTE:** The supervisor shall direct that the collector body be cleaned or to continue with the task.

**7.4.1.1 If found, notify the supervisor.****7.4.2 Obtain the number of empty hazardous waste drums/containers specified by the supervisor.**

**NOTE:** The supervisor shall contact the requestor to obtain container identification data.

**7.4.3 Label the containers with information furnished by the supervisor.****000091**

**7.0 PROCEDURE** (cont.)

**NOTE:** The supervisor shall schedule the task so that containers of hazardous waste can be transferred to a RCRA warehouse before the end of the shift.

**7.4.4** Begin operations with the Supersucker (Refer to SOP 43-C-414).

**NOTE 1:** After being emptied, the level of residues remaining shall not exceed one inch or 0.3%, by weight, of the capacity of the collector body.

**NOTE 2:** Usually, 0.3% of the capacity of the Supersucker collector body will equal 100 pounds of material, depending on the specific gravity.

**7.4.5** When the tank is full or the job is completed, empty Supersucker collector body into the prepared containers (Refer to SOP 43-C-414).

**NOTE:** The supervisor shall specify action for removing additional material.

**7.4.6** If the collector body cannot be emptied below 0.3% of capacity, notify the supervisor.

**NOTE:** The supervisor shall ensure that drums of hazardous waste are transferred to a RCRA warehouse before the end of the shift.

**7.4.7** Notify the supervisor that containers are ready for transfer to storage.**7.4.8** Using solvents furnished by the supervisor and process water, rinse and drain the collector body as follows:**7.4.8.1** Open the Tailgate per SOP 43-C-414.**7.4.8.2** If the collector body is to be entered, check that a "Confined Space Entry Permit" is posted.**7.4.8.3** Spray the solvent on the inside of the collector body.**7.4.8.4** Using a hose, rinse the solvent off the collector body walls.**7.4.8.5** Drain the collector body (per SOP 43-C-414) into containers that are labeled for the material.**7.4.8.6** Repeat 7.4.8.2 thru 7.4.8.4 two more times.**7.4.8.7** Close the Tailgate.

**NOTE:** The supervisor shall arrange to have the containers transported and stored in the same manner as the material that was picked up.

**7.4.9** Notify the supervisor that rinsing is complete.

**6703**RECORD OF ISSUE/REVISIONS

<u>DATE</u>	<u>REV. NO</u>	<u>DESCRIPTION AND AUTHORITY</u>
11-09-92	0	A procedure for using the "Supersucker" truck required per Request No. P92-208 initiated by J. Hensley.

**000093**

**7.0 PROCEDURE (cont.)****7.5 Handling Hazardous Material Spills**

**NOTE:** The supervisor shall immediately report the incident to the AEDO by telephone (Ext. 6511) or by radio (202).

7.5.1 If a spill should occur during the operation of the Supersucker or transfer of hazardous waste or acutely hazardous waste, notify the supervisor or, in the supervisors absence, the AEDO.

7.5.2 At the supervisors direction, clean up the spill per SOP 20-C-606.

**8.0 APPLICABLE FORMS**

None

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**ATTACHMENT C**

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# V.E. ENTERPRISES, INC.

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DATE: FEBRUARY 10, 1995  
TO: KATHY MORRIS/OFFICE MANAGER—RAIN FOR RENT  
FROM: STEVE BROWN/V.E. ENTERPRISES  
SUBJECT: TANK TESTS & STANDARDS

KATHY,

THIS IS THE INFORMATION YOU REQUESTED ON TANKS NUMBERED AS FOLLOWS:

TANK NUMBER	WATER TEST DATE
238282-3271	4-08-94
239297-3274	4-13-94
239428-3449	8-10-94
239429-3450	8-17-94
239430-3451	8-23-94
239340-3192	6-06-94

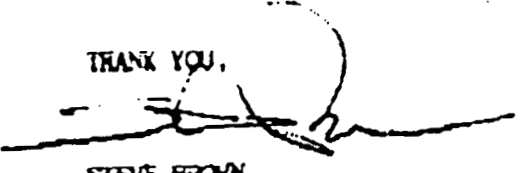
THE WATER TEST PERFORMED ON THESE TANKS IS AS FOLLOWS:

1. TANK IS FILLED WITH WATER
2. TANK SETS APPROXIMATELY 2 TO 3 HOURS
3. LEAKS ARE FOUND AND REPAIRED UNTIL NO LEAKS ARE PRESENT
4. TANK IS EMPTIED

THESE TANKS WERE SAND OR SHOT BLASTED TO A COMMERCIAL OR NEAR WHITE CONDITION. AN EPOXY PRIMER (DUPONT ESORP3) WAS APPLIED 1-2 MILS THICK. A FINISH TOP COAT OF DUPONT CENTARI ACRYLIC ENAMEL WITH ACTIVATOR (DUPONT 793) WAS APPLIED 4-5 MILS THICK. THESE FINISHES WERE APPLIED WITH AN AIRLESS SPRAY SYSTEM.

IF I CAN BE OF FURTHER ASSISTANCE PLEASE CALL.

THANK YOU,

  
STEVE BROWN

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**ATTACHMENT D**

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Dec 20 4 23 PM '94



EMERGENCY RESPONSE TEAM  
FIRE/SPILL PREPLAN  
IGNITIBLE/COMBUSTIBLE LIQUID  
TRANSFER PROJECT

APPROVED  
FIRE PROTECTION ENGINEERING

DEC 19 1994

REVIEWED BY: GZE

4. Transfer of liquid waste from storage vessels to the tank trailers.
5. Shipment of the liquid waste from the FEMP to the K-25 TSCA Incinerator located in Oak Ridge Tennessee.

#### Ignitable Liquid Vessels.

The Ignitable liquids will be transferred into two (2) designated storage vessels. The vessels, numbered 239430 and 239428 will be made inert prior to pumping liquids into the vessels. Industrial Hygiene will be responsible for assuring an inert atmosphere.

#### Response Guidelines

##### Responding Vehicles;

Rescue 301  
Engine 312  
Haz-Mat 328 and support trailer  
Ambulance 331 or 332  
Mobile Air unit (if required)

**"NOTE":** Engine 312 is the preferred Engine due to it's foam capability

**Primary Response Route;** East on 1st street to north on "E" street to the High Pressure hydrant south of Building 79 (RCRA Warehouse). Prepare to lay a supply line to the scene. Prepare to start foam operations.

**Secondary Response Route;** West on 1st street to north on "C" street to east on 2nd street to the High Pressure hydrant south of Plant 9. Prepare to lay a supply line to the scene. Prepare to start foam operations.

On activation of the ERT pagers for a response to the Ignitable/Combustible liquid transfer project the EC must obtain the current wind speed and direction to enable him to respond upwind of the incident scene. This information must be passed on to the other responding units.

Once on the scene the EC must conduct a size-up and notify the Communication Center of the situation as it exists. The EC must make a conscious effort to avoid entering a dangerous situation and his approach should be from a upwind side. It may be necessary during the size-up to take immediate action to save lives or to isolate the area, but this must be done with full awareness of the possible hazards to ERT personnel. Personal protective equipment

Vapor explosion hazard indoors, outdoors, or in sewers

Run-off to sewer may create fire or explosion hazard.

#### Health Hazards;

Vapors may cause dizziness or suffocation.

Contact may irritate or burn skin and eyes.

Fire may produce irritating gases.

Run-off from fire control or dilution water may cause pollution.

#### Emergency Action;

Keep unnecessary personnel away; isolate hazard area and deny entry.

Stay up wind; keep out of low laying areas.

SCBA and structural firefighters protective clothing will provide limited protection.

#### Fire;

Small fires - Dry Chemical, CO<sub>2</sub>, water spray, or foam (AFFF).

Large fires - Water spray foam (AFFF) is recommended.

Cool containers that are exposed to flames with water from the side until well after the fire is out.

For massive fire in a cargo area, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from the area and let the fire burn out.

Withdraw immediately in case of rising sound from venting safety device or and discoloration of the vessel due to fire.

#### Spill or leak;

Shut off ignition sources; no flares, smoking, or flames in the area.

Stop leak if you can do so without risk.

Water spray may reduce vapors, but it may not prevent ignition

Entrance into the diked area or contained spill area shall be limited to emergency rescue or related activities.

If the product can be pumped, explosion proof pumps shall be used to transfer the product to approved flammable liquid containers. Combustible/flammable liquids shall not be washed into sumps or storm sewers. All containers and transfer units must be properly grounded and bonded. Standby fire attack crews shall be in position during all such operations. Beryllium alloy non-sparking tools shall be used for any repairs or mechanical processes within the spill area.

Removal of barricade tape and access to the area shall be permitted only after spilled product has been removed, area surveyed, and with the approval of the AEDO.

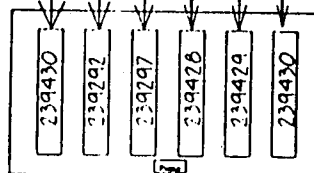
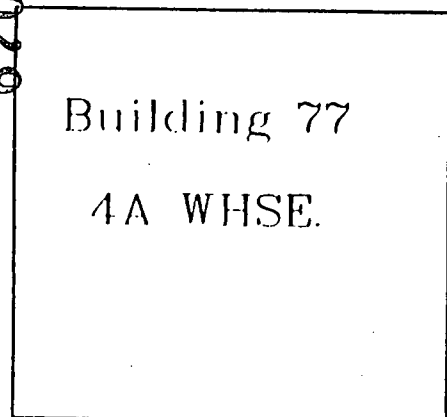
Any member of the ERT that is suspect of an accidental; exposure or actual contamination shall report to Medical for treatment. This shall be documented by the Emergency Chief or person in charge.

#### Foam System Operation

Engine 312 is the preferred Engine to response due to it's foam capabilities. The Engine is equipped with an around the pump foam proportioner. It has a 50 gallon foam tank located above the pump. The foam tank contains AFFF foam. To operate the foam system the pump must be in operation. The foam system may then be operated in the following manner;

1. Pull FOAM handle to open the foam tank.
2. Pull EDUCTOR handle.
3. Set metering valve according to the desired percentage.
4. The Intake (vacuum gage) MUST be maintained at 10 to 15psi at all times in order for the foam system to operate.
5. Apply foam.
6. At any time during the operation the recirculating valve should not be turned on. This will allow for the foam solution to enter the booster tank, which will required to back flush the pump.
7. To shut down, close the FOAM valve and pull the FLUSH

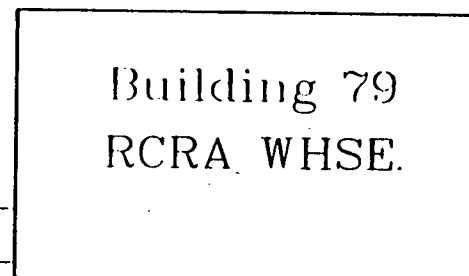
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Combustible Liquid

Unloading  
Stage

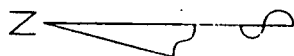
A/C

East  
Water  
Tower

6.1.1

"E" Street

2nd St.



The primary response route will be east on 1st Street to north on "E" Street to the HP Hydrant south of Building 79.

Secondary response route will be west on 1st Street to north on "C" Street to west on 1st Street to the HP Hydrant south of Plant 9

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**ATTACHMENT E**



Fernald Environmental Management Project Fernald Environmental Restoration Management Corp. REMEDATION SUPPORT OPERATIONS DOCUMENT PROGRAM		Page 1 of 16 Revision No. 0 Revision Date: N/A	
WASTE PROGRAMS MANAGEMENT PROCEDURE	Movement Of Hazardous/Mixed Waste	SOP 20-C-017	
		Area: As Applicable	
(Signature on File) Authorization: G. Hazlewood, Waste Programs Project Mgmt. Manager		Supersedes: 20-C-017 Dated: 11-06-92	Issue Date: 09-20-94

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## ATTACHMENTS

- 1 Nuclear Material Transfer/Receipt/Identification  
Record FS-F-1990 (Card 68/69/XX) Attachment I ..... 12
- 2 Example of Labels/Markings Open Head Drum  
Attachment 2 ..... 13
- 3 Example of Labels/Markings Bung Drum  
Attachment 3 ..... 14
- 4 FM Approved Stainless Steel Safety Can RCRA  
Waste Labeling/Marking Attachment 4 ..... 15

## 1.0 PURPOSE

The purpose of this document is to establish the procedure for the onsite transportation (not within buildings) of hazardous/mixed/TSCA wastes.

## 2.0 SCOPE

This procedure is applicable to personnel involved in the transport of hazardous/mixed/TSCA wastes.

## 3.0 RESPONSIBILITIES

### 3.1 Supervisors shall be responsible for the following:

- Providing oversight and guidance to the personnel assigned to transport hazardous/mixed waste.
- Ensuring that MVOs are qualified per the established qualification requirements identified by the Division Manager.
- Reviewing applicable Material Safety Data Sheets (MSDS) and Material Evaluation Forms (MEFs) with operators.
- Contacting Industrial Hygiene (IH) or Radiological Control to determine the required respiratory protection and PPE for the area where the material is being moved and/or stored.
- Issuing specified respiratory protection and PPE to personnel as specified on applicable permits.
- Obtaining and posting a "Radiation Work Permit" and/or "Chemical Hazardous Work Permit" when required.

### 3.2 Transportation Dispatcher shall be responsible for coordinating the activities of personnel involved in accepting, transporting, and releasing the hazardous/mixed waste transferred via trailer, forklift, or other vehicles.

### 3.3 Driver shall be responsible for the following:

- Ensuring that available consignment documentation is complete.
- Transporting consignments in a safe and efficient manner.

### 3.4 Materials Control and Accountability (MC&A) shall be responsible for preparing the forms required for transporting material and updating by making changes to the inventory when containers are moved.

## 4.0 SAFETY REQUIREMENTS

- 4.1 An industrial truck used to move hazardous/mixed waste shall have an up-to-date inspection in accordance with SOP 20-C-902 at beginning of each shift.
- 4.2 Leather-palm gloves shall be worn while operating equipment (not while operating fork trucks) and when handling sharp-edged or abrasive material.
- 4.3 Safety glasses shall be worn outside of enclosed cab vehicles unless IH or Radiological Control specify other eye protection.
- 4.4. The driver shall remain with the vehicle while a load is being transported.
- 4.5 Respiratory protection issued by the Supervisor shall be worn when required by IH or Radiological Control on applicable permits.
- 4.6 Personnel shall have reviewed and be familiar with MSDSs and MEFs for hazardous chemicals/material that may be used or encountered.
- 4.7 Radiological Control shall be contacted prior to moving a container out of a contamination area.
- 4.8 Drums shall be strapped down prior to transport.
- 4.9 Any circumstance which could have resulted in an intake of radioactive materials by inhalation, ingestion, or absorption shall immediately be reported to a Supervisor. The Supervisor shall immediately report the circumstance of possible radioactive materials intake to ES&H Radiological Control Department for evaluation. When the suspect isotope is uranium, the involved personnel shall report to the Urine Sampling Station at the end of their shift to complete an Incident Investigation Report (IIR) (Form No. FS-F-1458), and submit an incident urine sample. The involved personnel shall also report to the Urine Sampling Station at the start of their next shift to submit a follow-up urine sample. When the suspect isotope is other than uranium, the involved personnel shall report to the Dosimetry Section of the Radiological Control Department for further determination of actions. Employees are responsible for complying with additional requirements as specified by the Radiological Control Section.
- 4.10 Any situation which could have resulted in the inhalation, ingestion, or absorption of a hazardous material shall immediately be reported to a Supervisor or to the Assistant Emergency Duty Officer (AEDO), who will immediately report the circumstances to Medical and Industrial Hygiene. The involved personnel shall be directed by the Supervisor or Assistant Emergency Duty Officer (AEDO) as to when and where to report for medical evaluation, completion of an Incident Investigation Report (IIR)(Form No. FS-F-1458), and submitting bioassay samples (e.g., blood, urine, etc.). Employees are responsible for complying with any additional requirements as specified by ES&H.

## 5.0 PROCEDURE

### 5.1 Transporting Non-Satellite Accumulation Area Waste to Storage

**NOTE:** Any time during the movement/transfer of drums, from any location, if a spill occurs refer to SOP 20-C-606.

#### GENERATOR

- 5.1.1 Obtain the best available storage location from Waste Operations Support.
- 5.1.2 Notify the Supervisor of the Storage Area that containers are ready for transport to storage.
- 5.1.3 Inform the Transportation Dispatcher of material type, packaging, amount of material, location of material, and destination.

#### TRANSPORTATION DISPATCHER

- 5.1.4 Notify the Supervisor of the Storage Area of the volume of material that is being transported.

#### TRANSPORTATION DISPATCHER/SUPERVISOR

- 5.1.5 Direct the transporter to the waste location.

**NOTE 1:** Drivers assigned to the generator or Waste Operations may move materials as directed by the generator or Waste Operations w/o notifying the Transportation Dispatcher.

**NOTE 2:** The Transportation Dispatcher and/or Supervisor shall ensure the driver has the required equipment and training.

#### DRIVER

- 5.1.6 Sign the "Nuclear Materials Transfer/Receipt/Identification Record" (68/69/XX Cards), Forms FS-F-1990 (See Attachment 1) after it has been signed by the supervisor.
- 5.1.7 Transport the consignment to the specified storage area.
- 5.1.8 Give documentation to the storage area Supervisor.

**NOTE:** At the delivery point, MC&A and the Supervisor shall accept and sign the "Nuclear Materials Transfer/Receipt/Information Record" cards.

- 5.1.9 If the material is rejected at the delivery point, proceed per Step 5.5.

**NOTE:** When transporting drums by forklift (between buildings or pads), one pallet at a time shall be moved.

## 5.0 PROCEDURE (cont.)

### 5.2 Transporting Waste from an SAA to Storage using a Forktruck or Trailer

#### GENERATOR

- 5.2.1 Obtain the best available storage location from Waste Operation Support.
- 5.2.2 Notify the Supervisor of the Storage Area that containers are ready for transport to storage.
- 5.2.3 Inform the Transportation Dispatcher of material type, packaging, amount of material, location of material, and destination.

#### TRANSPORTATION DISPATCHER

- 5.2.4 Notify the Supervisor of the Storage Area that material is being transported.

#### TRANSPORTATION DISPATCHER/SUPERVISOR

- 5.2.5 Direct a driver to the location of the waste.

**NOTE 1:** Drivers assigned to the generator or Waste Operations may move materials as directed by the generator or Waste Operations w/o notifying the Transportation Dispatcher.

**NOTE 2:** The Transportation Dispatcher and/or Supervisor shall ensure that the driver has the required equipment and training.

**NOTE 3:** Refer to SOP 20-C-606 if a spill occurs during transport.

#### DRIVER

- 5.2.6 Check with Quality Assurance to verify that documentation is complete.

**NOTE:** Documentation attached shall include the Lot Code Number, Reactivity Group Code, Hazardous Waste Marking (label), 65 Card, 68/69/XX Card, MEF, Pre-Transfer Checklist, Weighed and Radiological Survey for surface contamination per Topical Manual FMPC-20898 (Only for drums coming from a contamination area).

- Notify the Generator if documentation is not complete.

- 5.2.7 Check the condition of the container.

**NOTE 1:** DOT approved drums and FM approved five-gallon stainless steel and poly safety cans with self-closing spigots are acceptable containers (See Attachments 3 and 4).

**NOTE 2:** Self-closing spigots shall not bind.

- Notify the Supervisor if the containers have rust, holes, dents, or other damage.

**5.0 PROCEDURE (cont.)**

5.2.8 Check the security of the lid or closure.

**NOTE:** Lids shall be taped to drums of liquid waste to avoid spills.

- Tighten loose covers.

5.2.9 Check for leakage or the presence of material on external surface of the container.

- If found, notify the Supervisor.

**NOTE:** Refer to SOP 20-C-600 for overpacking if necessary.

5.2.10 Check the compatibility of material.

**NOTE:** Only containers identified by one RGC shall be moved in each load except for containers identified by the compatibility chart in SOP 20-C-630 as compatible material that may be transported with other RGC codes.

- If the inspection indicates a condition that is not acceptable, proceed per Item 5.5.

5.2.11 Check that the load is secure.

**CAUTION**

The SAC is made of plastic and may be damaged in handling or may slide on smooth surfaces.

**NOTE:** Containers and/or SACs shall be strapped down.

- Tighten the load if loose.

5.2.12 If the load is acceptable, driver signs the "Nuclear Materials Transfer/Receipt/Identification Record" (68/69/XX Cards).

5.2.13 Transport the consignment to the specified storage area.

5.2.14 Give the documentation to the Supervisor.

**NOTE:** At the delivery point, MC&A and the Supervisor shall accept the material and sign the "Nuclear Materials Transfer/Receipt/Identification Record" cards.

5.2.15 If the material is rejected at the delivery point, proceed per Item 5.5.

## 5.0 PROCEDURE (cont.)

### 5.3 Other Vehicle Transport Process

#### GENERATOR

5.3.1 Perform Steps 5.2.1 through 5.2.3.

5.3.2 Notify the Transportation Dispatcher of special vehicle requirements (such as pickup truck or flatbed).

5.3.3 Notify the Supervisor of the Storage Area that material is being transported.

#### TRANSPORTATION DISPATCHER/SUPERVISOR

5.3.4 Send a driver and the required vehicle type to the waste location.

#### DRIVER

**NOTE:** Drivers assigned to the generator or Waste Operations may move materials as directed by the generator or Waste Operations w/o notifying the Transportation Dispatcher.

5.3.5 Perform Steps 5.2.6 through 5.2.15.

**NOTE:** The Generator may have a requirement to move containers of hazardous waste other than to a storage building. The waste may be moved with in an SAA; within a building to store material for shipment; for physical inventory; between or within buildings to obtain scale weight; remove material from non-accumulation areas such as fields; or for any other purpose requiring an Driver and vehicle to move hazardous/mixed waste.

### 5.4 Miscellaneous Movements

#### GENERATOR

5.4.1 If required, notify the Transportation Dispatcher of location of waste containers, material type, packaging, amount to be moved, and destination.

**NOTE:** Drivers assigned to the Generator or Waste Operations may move material as directed by the Generator or Waste Operations without notifying the Transportation Dispatcher.

#### TRANSPORTATION DISPATCHER/SUPERVISOR

5.4.2 If an Driver is not assigned to the Generator, send an Driver to the location of the waste to be moved.



## 5.0 PROCEDURE (cont.)

### DRIVER

5.4.3 Inspect the containers of waste as follows:

**NOTE:** Self-closing spigots shall not bind and the bungs shall be sealed with pipe tape.

5.4.4 Check the container for rust, dents, holes, leaks, and other damage.

- Notify the Supervisor if damage is found and if necessary overpack per SOP 20-C-600.

5.4.5 Check that containers are approved for the type waste.

**NOTE:** DOT approved drums and FM approved five-gallon stainless steel cans are acceptable containers (See Attachments 2, 3, and 4).

5.4.6 Check that lids or closures are secure.

**NOTE:** Lids shall be taped to drums to avoid spills for drums containing liquid only.

- Tighten loose covers.

5.4.7 Check the external surface of the container for hazardous material.

- Notify the Supervisor if a container surface is contaminated.

5.4.8 Check that the load is secure on the trailer or vehicle.

**NOTE:** All containers shall be strapped down.

5.4.9 Check the compatibility of the material.

**NOTE:** Only containers identified by one RGC shall be allowed per vehicle except for containers identified by the compatibility chart listed in SOP 20-C-630 as compatible material may be transported with other RGC codes.

5.4.10 If inspection reveals an unacceptable condition, the Driver shall proceed per Item 5.5.

5.4.11 Move the material to the location designated by generator.

### 5.5 Rejection of Consignment Process

#### DRIVER

5.5.1 Notify the Transportation Dispatcher or Transportation Supervisor of any questionable condition of the consignment.

## 5.0 PROCEDURE (cont.)

### DRIVER/TRANSPORTATION

5.5.2 Request the assistance of the Transportation Supervisor on any questionable condition of the consignment.

**NOTE:** The Transportation Supervisor shall evaluate the consignment and communicate concerns to the Generator and direct the Driver to perform additional tasks as required.

### GENERATOR

5.5.3 Evaluate the concerns and take action as necessary.

**NOTE 1:** Concerns which are confirmed to be non-compliances along with any corrective actions shall be documented.

**NOTE 2:** When all confirmed deficiencies have been corrected, transport action shall be initiated.

## 6.0 DEFINITIONS

6.1 Generator - person generating the waste.

6.2 Hazardous Waste - A waste material exhibiting characteristics of ignitability, corrosivity, reactivity, or toxicity, is listed in 40 CFR 261 (RCRA), or is identified as hazardous in applicable state regulations.

6.3 Mixed Waste - Waste containing both radioactive and hazardous components as defined by the Atomic Energy Act and the Resource Conservation and Recovery Act (RCRA).

6.4 Resource Conservation and Recovery Act (RCRA) - The congressional act requiring "cradle to grave" control and proper management of all hazardous wastes.

6.5 Satellite Accumulation Area (SAA) - A waste accumulation area, controlled by the Supervisor of the process that generated the waste, that is located near the generation point.

6.6 Satellite Accumulation Container (SAC) - Portable polyethylene container, orange in color, designed to hold 55-gallon drums and approved containers.

6.7 Transport - Moving materials by forklift, trailer, or other vehicle from one location to another.

## 7.0 APPLICABLE DOCUMENTS

### 7.1 Drivers

7.1.1 RM-0012, "Quality Assurance Program Description"

7.1.2 DOE 5400 Series, "Environmental Safety and Health (Directives)"

## 7.0 APPLICABLE DOCUMENTS (cont.)

### 7.2 References

- 7.2.1 SOP 20-C-630, "Receipt Inspection and Placement of Hazardous, Mixed, PCB, and Asbestos Wastes into Storage"
- 7.2.2 SOP 20-C-606, "Hazardous Material Spill Cleanup"
- 7.2.3 SOP 20-C-902, "Inspecting and Operating Liquid Propane Gas (LPG) Powered Handstackers and Tuggers"
- 7.2.4 SOP 20-C-500, "Inspecting RCRA Waste Load/Unload and Staging Area"
- 7.2.5 SSOP-0035, "Satellite Accumulation Areas and Interim Containers for Hazardous Waste"
- 7.2.6 SSOP-0067, "Spill Incident Report and Cleanup"
- 7.2.7 SOP 20-C-600, "Overpacking Defective Containers"

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NUCLEAR MATERIAL TRANSFER/RECEIPT/IDENTIFICATION  
FS-F-1990 (Card 68/69/XX)  
Attachment 1

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Issue Date: 09-20-94	Rev. No. 0	Document No. 20-C-017	Page 13 of 16
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EXAMPLE OF LABELS/MARKINGS OPEN HEAD DRUM  
Attachment 2

EXAMPLE OF LABELS/MARKINGS CLOSE HEAD DRUM  
Attachment 3

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Issue Date: 09-20-94	Rev. No. 0	Document No. 20-C-017	Page 15 of 16
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FM APPROVED STAINLESS STEEL SAFETY CAN RCRA  
WASTE LABELING/MARKING  
Attachment 4

RECORD OF ISSUE/REVISIONS

<u>DATE</u>	<u>REV. NO.</u>	<u>DESCRIPTION AND AUTHORITY</u>
11-06-92	0	Requirement for Establishing Engineering Control Area (ECA) for Sample Disposition per Request No. P92-255, initiated by A. Baisley.
08-09-93	1	Revised to incorporate CIO C93-121 per Request P93-770 and update to conform with Procedure Program requirements.
09-20-94	0	Reissue of document to update to current requirements per Request No. P94-0397, initiated by J. Baarlaer. The document format does not conform to current RSO SOP format per PO-D-026, format changed at the request of 20-C-017 document owner.

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Fernald Environmental Management Project Fernald Environmental Restoration Management Corp. REMEDATION SUPPORT OPERATIONS DOCUMENT PROGRAM		Page 1 of 10 Revision No. 0 Revision Date: N/A
REMEDATION SUPPORT OPERATIONS PROCEDURE	Emptying Liquid Hazardous Waste Storage Containers	SOP 20-C-613
		Area: As Applicable
(Signature on File) Authorization: H. Bailey, Materials Management Manager	Supersedes: 20-C-613 Dated: 03-09-90	Issue Date: 08-05-93

## 1.0 PURPOSE

The purpose of this document is to provide the procedure for transferring liquid hazardous waste from a storage container into a receiving container.

## 2.0 APPLICABILITY

This procedure is applicable to damaged drums/containers, in a Satellite Accumulation Area or RCRA Storage Facility, holding liquid hazardous waste (excluding wastes designated as acutely hazardous) designated for transfer into a receiving container.

## 3.0 RESPONSIBILITIES

### 3.1 Supervisors shall be responsible for the following:

- 3.1.1 Coordinating with support organizations when assistance is required.
- 3.1.2 Coordinating personnel emptying and redrumming hazardous waste containers.
- 3.1.3 Ensuring that personnel are qualified per the established training requirements identified by the Division Manager.
- 3.1.4 Providing drums to receive the stored waste.
- 3.1.5 Ensuring that receiving drums are labelled in accordance with SOP 20-C-630.
- 3.1.6 Upon notification of a spill or abnormal event, immediately reporting the event to the AEDO and ensuring a Minor Event Report (MER) is submitted.
- 3.1.7 Contacting Industrial Hygiene or Radiological Safety to determine the appropriate respiratory protection for the process being performed.
- 3.1.8 Issuing the required respiratory protection to operators.
- 3.1.9 Obtaining and posting permits that may be required.
- 3.1.10 Reviewing applicable Material Safety Data Sheets (MSDS) with operators.

### 3.2 Operators shall be responsible for complying with this procedure.

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#### 4.0 DEFINITIONS

- 4.1 Acutely Hazardous - A waste known to be fatal to humans in low doses or capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness.
- 4.2 Compatible Container - A can, drum, or box, that is approved for the waste to be accumulated.
- 4.3 Hazardous Waste - A discarded material, regulated under RCRA, which is listed on the Environmental Protection Agency Hazardous Waste List or exhibits characteristics of ignitability, corrosivity, reactivity, or Extraction Procedure (EP) toxicity.
- 4.4 Receiving Drum - An empty drum, or drum containing waste or residue of the same type as intended to receive.
- 4.5 Resource Conservation and Recovery Act (RCRA) - The Congressional Act which establishes safe "cradle to grave" and environmentally acceptable management practices for specific hazardous wastes.
- 4.6 Satellite Accumulation Area (SAA) - A designated area for temporary waste storage at or near the waste generation point.
- 4.7 Storage Drum - A damaged container of RCRA waste which requires emptying into a receiving drum.

#### 5.0 APPLICABLE DOCUMENTS

##### 5.1 Drivers

- 5.1.1 PO-D-026, "Site Services Document Program"
- 5.1.2 "FEMP Conduct of Operations Manual"
- 5.1.3 RM-0012, "Quality Assurance Program Description"

##### 5.2 References

- 5.2.1 SOP 1-C-305, "Baling Scrap Metal Drums"
- 5.2.2 SOP 20-C-601, "Packaging Low Level Radioactive Waste (L-LRW) for Offsite Disposal"
- 5.2.3 SOP 20-C-630, "Receipt Inspection, Storage, and Storage Inspection of Hazardous Waste"
- 5.2.4 SOP 20-C-606, "Hazardous Material Spill Cleanup"
- 5.2.5 SOP 20-C-902, "Liquid Propane Gas Powered Handstackers and Tuggers"
- 5.2.6 SOP 20-C-912, "Checking Scale Operation"

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**6.0 INDUSTRIAL HEALTH AND SAFETY REQUIREMENTS**

- 6.1 A defined safety system is not involved.
- 6.2 Safety glasses shall be worn unless otherwise specified by the supervisor, ES&H, or posted signs.
- 6.3 Respiratory protection issued by the supervisor shall be worn when required.
- 6.4 Face shields shall be worn when removing lids or bungs from containers with liquids by ES&H.
- 6.5 Goggles or face shields shall be worn when a possibility exists of personnel being splashed with liquids.
- 6.6 A rubber apron shall be worn if there is a possibility of being splashed with caustic, acids, or any other chemical which could cause immediate skin damage upon contact.
- 6.7 HEPA type filter vacuum cleaners when a current DOP test label or a vacuum system approved by ES&H shall be used for cleanup.
- 6.8 Leather-palm gloves shall be worn when handling drums, operating equipment, and when handling rough, sharp-edged, or contaminated materials.
- 6.9 Neoprene rubber gloves shall be worn when handling hazardous chemical waste where skin contact is possible.
- 6.10 Any release of hazardous waste shall be handled per SOP 20-C-606.
- 6.11 Personnel safety equipment (eyewash, fire extinguishers, safety showers) shall be operational and readily available for emergencies.
- 6.12 Operators shall have reviewed and be familiar with MSDSs for hazardous material/chemicals that may be used or encountered.
- 6.13 Any circumstance which could have resulted in an intake of radioactive materials by inhalation, ingestion, or absorption shall immediately be reported to a Supervisor. The Supervisor shall immediately report the circumstance of possible radioactive materials intake to ES&H Radiological Control Department for evaluation. When the suspect isotope is uranium, the involved personnel shall report to the Urine Sampling Station at the end of their shift to complete an Incident Investigation Report (IIR) (Form No. FMPC-IRS&T-1458), and submit an incident urine sample. The involved personnel shall also report to the Urine Sampling Station at the start of their next shift to submit a follow up urine sample. When the suspect isotope is other than uranium, the involved personnel shall report to the Dosimetry Section of the Radiological Control Department for further determination of actions. Employees are responsible for complying with additional requirements as specified by the Radiological Control Section.

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## 6.0 INDUSTRIAL HEALTH AND SAFETY REQUIREMENTS (cont.)

- 6.14 Any situation which could have resulted in the inhalation, ingestion, or absorption of a hazardous material shall immediately be reported to a Supervisor or to the Assistant Emergency Duty Officer (AEDO), who will immediately report the circumstances to Medical and Industrial Hygiene. The involved personnel shall be directed by the Supervisor or AEDO as to when and where to report for medical evaluation, completion of an Incident Investigation Report (IIR) (Form No. FMPC-IRS&T-1458), and submitting bioassay samples (e.g. blood, urine). Employees are responsible for complying with any additional requirements as specified by ES&H.

## 7.0 GENERAL

- 7.1 Warnings, Cautions, and Notes precede the Step or Item to which they apply
- 7.2 Supervision shall be notified if a damaged acutely hazardous waste storage container is received.

**NOTE:** This procedure excludes the handling of acutely hazardous waste containers.

## 8.0 PROCEDURE

### 8.1 Emptying Storage Drums

- 8.1.1 Check the scale to be used per SOP 20-C-912.
- 8.1.2 Tare weigh the receiving drum.
- 8.1.3 Record the weight on an "Item Production/Certification/Identification" card, Form FS-F-1945-XX (See Figure 1).
- 8.1.4 Using PVC pipe and HERCULITE (or similar), construct a secondary containment area.
- 8.1.5 Place the receiving drum in the diked area.
- 8.1.6 Remove the lid/bung from the drum.
- 8.1.7 Place the damaged storage drum within diked area, near the receiving drum.

**NOTE:** The supervisor shall arrange for an Industrial Hygiene (IH) Technician to monitor the area for fumes when the lid/bung is removed.

- 8.1.8 When the drums are positioned, notify the supervisor.
- 8.1.9 Check the lids on the drums.
- 8.1.9.1 Replace open head lids with bung-type lids.

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8.0 PROCEDURE (cont.)

8.1.10 Remove the bung plug from the storage container lid.

8.1.11 Remove the bung plug from the receiving container lid.

**NOTE:** The pump shall be identified with the EPA hazardous waste number for the material to be transferred.

8.1.12 Check that the portable pump to be used is labelled with the hazardous waste number for the material in the storage container.

8.1.12.1 If not, obtain a pump that has a compatible number affixed.

8.1.12.2 If no compatible pump is available, notify the supervisor.

8.1.12.3 Clean the pump as directed by the supervisor.

8.1.13 Place the portable pump inlet hose into the storage drum.

8.1.14 Place the outlet hose into the receiving drum.

8.1.15 Connect a grounding cable between an electrical ground and a drum.

8.1.16 Repeat 8.1.16 to ground the second drum.

8.1.17 Using the portable pump, empty the storage drum.

8.1.18 Check the receiving drum while material is being transferred.

**NOTE:** Bulging drums shall be handled under direct supervision of the Area Supervisor and IRS&T Department.

8.1.18.1 If a drum starts to bulge, shut off the pump.

8.1.18.2 Notify the supervisor.

8.1.19 When the flow of material to the receiving drum has decreased to a trickle, shut off the pump.

8.1.20 Remove the pump and hose slowly so that liquid will drain into the container.

8.1.21 Store the pump on an absorbent pad in the secondary containment area of a RCRA Warehouse.

8.1.22 Place a funnel in receiving drum bung.

**NOTE:** A drum rotator may be used to invert drum as determined by supervisor.

8.1.23 Invert the storage drum over the receiving drum with the storage drum bung in the funnel.

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**8.0 PROCEDURE (cont.)**

**NOTE:** Storage drums which contain sludge or accumulated solids may need to be inverted for longer than five minutes or tapped from the outside with a rubber mallet.

- 8.1.24 After five minutes in the inverted position, turn the storage drum upright.
- 8.1.25 Lower the drum to the floor.
- 8.1.26 After five minutes in the upright position estimate the amount of residue remaining in the bottom of the drum.
- 8.1.27 Record the estimated amount on Form FMPC-REST-3192 (See Figure 2).
- 8.1.28 Weigh the empty storage drum.
- 8.1.29 Record the storage drum weight on Forms FS-F-1945-XX and FMPC-REST-3192.
- 8.1.30 Complete Form FMPC-REST-3192.
- 8.1.31 Give the completed form to the supervisor.
- 8.1.32 Install a bung plug in the storage drum.

**NOTE:** The supervisor shall have the drum transferred to a RCRA storage facility.

- 8.1.33 Notify the supervisor that the empty drum is ready for storage or disposal per SOP 1-C-305.
- 8.1.34 Install the bung plug in the receiving drum per SOP 20-C-601.

**CAUTION**

Receiving drums shall be marked with the same identification as the damage storage drum.

- 8.1.35 Label the receiving drum per SOP 20-C-630.
- 8.1.36 Complete required forms for the receiving drum per SOP 20-C-630.
- 8.1.37 Weigh the filled receiving drum.
- 8.1.38 Enter the weight on the Form FS-F-1945-XX.
- 8.1.39 Complete the Form FS-F-1945-XX.
- 8.1.40 Submit the completed form to the MC&A representative.

**6703****8.0 PROCEDURE (cont.)**

**NOTE 1:** Supervisor shall request Transportation to transport the drum to the RCRA storage area per SOP 20-C-630.

**NOTE 2:** The supervisor shall notify Waste Storage that the empty drum requires inspection.

**NOTE 3:** Waste Storage shall verify that the drum is empty and fill out the applicable portion of FMPC-REST-3192.

8.1.41 Notify the supervisor that the receiving drum is ready for storage and the damaged drum is ready for processing.

8.1.42 When Waste Storage has verified the drum is empty and returned Form FMPC-REST-3192, notify the supervisor that the drum is ready for crushing.

**9.0 APPLICABLE FORMS**

9.1 Figure 1 - FS-F-1945-XX, "Item Production/Certification/Identification"

9.2 Figure 2 - FMPC-REST-3192, "Empty Drum Status and Disposal Evaluation"

**000126**

## CARD XX ITEM PRODUCTION/CERTIFICATION/IDENTIFICATION

P. O. NO.	SOURCE	CLASS	MATERIAL TYPE	LOT SEQUENCE NO.	DATE MO DAY YEAR	SHIFT	BADGE NO.	PACKAGE NO.
SEAL NUMBER	SEAL DATE MONTH DAY YEAR	PACKAGE PHYSICAL CERTIFICATION			PLANT	PROD. MBA		
		YES NO						
		EMPTY CONTAINER AT START						
		RUST HOLES OR DENTS						
		MATERIAL IS AS CODED			PLANT TO	MBA TO		
WASTE DESCRIPTION AND COMMENTS		PROHIBITED MATERIALS					GROSS WEIGHT	
		LIQUIDS IN CONTAINER						
PACKAGE TYPE		MINIMUM OF VOID SPACE					TARE WEIGHT	
PACKAGE SIZE		PACKAGE SECURED						
		DRAIN PLUG SECURED					NET WEIGHT	
GENERATOR SIGNATURE					SUPERVISOR SIGNATURE		DATE	

FS-F-1945-XX (REV. 3-19-92)

## CARD 65 ITEM PRODUCTION/CERTIFICATION/IDENTIFICATION

P. O. NO.	SOURCE	CLASS	MATERIAL TYPE	LOT SEQUENCE NO.	DATE MO DAY YEAR	SHIFT	BADGE NO.	PACKAGE NO.
SEAL NUMBER	SEAL DATE MONTH DAY YEAR	PACKAGE PHYSICAL CERTIFICATION			PLANT	PROD. MBA		
		YES NO						
		EMPTY CONTAINER AT START						
		RUST HOLES OR DENTS						
		MATERIAL IS AS CODED			PLANT TO	MBA TO		
WASTE DESCRIPTION AND COMMENTS		PROHIBITED MATERIALS					GROSS WEIGHT	
		LIQUIDS IN CONTAINER						
PACKAGE TYPE		MINIMUM OF VOID SPACE					TARE WEIGHT	
PACKAGE SIZE		PACKAGE SECURED						
		DRAIN PLUG SECURED					NET WEIGHT	
GENERATOR SIGNATURE					SUPERVISOR SIGNATURE		DATE	

FS-F-1945-65 (REV. 3-19-92)

## CARD 66 ITEM PRODUCTION/CERTIFICATION/IDENTIFICATION

P. O. NO.	SOURCE	CLASS	MATERIAL TYPE	LOT SEQUENCE NO.	DATE MO DAY YEAR	SHIFT	BADGE NO.	PACKAGE NO.
SEAL NUMBER	SEAL DATE MONTH DAY YEAR	PACKAGE PHYSICAL CERTIFICATION			PLANT	PROD. MBA		
		YES NO						
		EMPTY CONTAINER AT START						
		RUST HOLES OR DENTS						
		MATERIAL IS AS CODED			PLANT TO	MBA TO		
WASTE DESCRIPTION AND COMMENTS		PROHIBITED MATERIALS					GROSS WEIGHT	
		LIQUIDS IN CONTAINER						
PACKAGE TYPE		MINIMUM OF VOID SPACE					TARE WEIGHT	
PACKAGE SIZE		PACKAGE SECURED						
		DRAIN PLUG SECURED					NET WEIGHT	
GENERATOR SIGNATURE					SUPERVISOR SIGNATURE		DATE	

FS-F-1945-66 (REV. 3-19-92)

ITEM PRODUCTION/CERTIFICATION/IDENTIFICATION  
FS-F-1945-XX  
Figure 1

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FMPC  
RESTORATION  
EMPTY DRUM STATUS AND DISPOSAL EVALUATION

OPERATOR'S NAME:		DATE:	
DRUM NO:	INVENTORY NO:	LOT MARK CODE:	
MATERIAL DESCRIPTION			
EPA HAZARD CODE(S):		RESIDUE REMAINING (INCHES):	
ORIGINAL DRUM TARE WT. (LBS):  = $W_1$	EMPTY DRUM WT. (LBS):  = $W_2$	NET WT. BEFORE EMPTYING (LBS):  = $W_n$	
WCA SIGNATURE		BADGE NUMBER	
OPERATOR'S SIGNATURE		BADGE NUMBER	
SUPERVISOR'S SIGNATURE		BADGE NUMBER	

THIS SECTION TO BE COMPLETED BY WASTE TECHNOLOGY			YES	NO
Weight of Residue: $W_2 - W_1 = W_r$	Is % Residue $\leq 3\%$ ?			
$(W_r/W_n) \times 100 =$ % Residue	Is the estimated Residue Remaining $\leq$ one inch?			
	Is the drum empty per 40 CFR 216.7?			

WASTE TECHNOLOGY DISPOSAL RECOMMENDATION:	
WASTE TECHNOLOGY SIGNATURE	BADGE NUMBER

FMPC-REST-3192 (1/25/90)

EMPTY DRUM STATUS AND DISPOSAL EVALUATION  
FMPC-REST-3192  
Figure 2

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RECORD OF ISSUE/REVISIONS

<u>DATE</u>	<u>REV. NO.</u>	<u>DESCRIPTION AND AUTHORITY</u>
03-09-90	0	Procedure prepared per Request No. P89-453, initiated by S. J. Murray.
03-11-91	1	Revised to incorporate CIO C90-045 per Request No. P90-343.
08-05-93	0	Reissued to update technical content per Request No. P92-471, initiated by M. Harper and to incorporate CIO C93-138 Per Request P93-629.

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**ATTACHMENT F**

**6703**copy: Bob, Jeff, Dan, John, **Kevin** 12/28/94**UNCLASSIFIED FACSIMILE COVER SHEET****DATE: December 22, 1994**

TO: M. E. Saunders	Fax: 615-574-9399
TO: C. E. Eblen	Fax: 615-574-6855
TO: J. Gilpin	Fax: 615-241-2843
TO: R. G. Kuehn	Fax: 502-441-6183
TO: W. E. Link	Fax: 614-897-3840
TO: K. Crosson	Fax: 513-738-6958
TO: E. Marsh	Fax: 216-993-1908

**FROM: Brenda S. Snyder, TSCA Incinerator Burn Plan Manager**  
**Phone: 615-576-4976 Fax: 615-576-5380**

**000131**

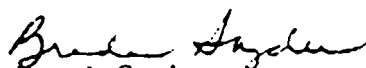
December 22, 1994

Generators

Good News!

As you will see in the attached letter from the EPA, the K-1435 TSCA Incinerator has been added to the list of incinerators that can treat CERCLA waste. Kevin Crosson from Fernald Environmental Restoration Management Corp. played an important role in us receiving this letter. Please let me know if you have any questions or need any additional information.

Thanks and have a happy holiday.

  
Brenda Snyder  
(615) 576-4976

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COUNTRYLAND STREET, N.E.  
ATLANTA, GEORGIA 30388

Wack

DEC 18 1994

4WD-RCRA

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Joe LaGrone  
U.S. Department of Energy  
Oak Ridge Operations  
P.O. Box 2001  
Oak Ridge, Tennessee 37831-8541

VINCE

Mr. Gordon G. Fee, President  
Martin Marietta Energy Systems  
Post Office Box E 2003  
Oak Ridge, Tennessee  
Oak Ridge, Tennessee 37831

Office Of The Manager  
12/10/94

SUBJ: CERCLA Off-Site Rule: Affirmative Determination of  
Acceptability for K-25 Incinerator, Oak Ridge, Tennessee

Dear Messrs. LaGrone and Fee:

This letter serves to inform you that the U.S. Environmental Protection Agency (EPA) has made an affirmative determination of acceptability for the receipt of off-site waste at the U.S. Department of Energy K-25 Incinerator (K-25), Oak Ridge, Tennessee, EPA I.D. No. TNO 890 090 004. Pursuant to 40 C.F.R. Section 300.440(a) (4), EPA has completed an initial assessment of K-25, and finds the facility acceptable for the receipt of off-site waste. Such off-site wastes are defined as those wastes generated as a result of activities authorized or funded by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). On September 22, 1993, EPA amended the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300, by adding Section 300.440, now known as the Off-site Rule. The rule implements and codifies the requirements contained in CERCLA Section 121(d)(3), and incorporates many provisions of the November 13, 1987 OSWER Directive (No. 9834.11), known as the Off-site Policy. The Off-site Rule establishes the criteria and procedures for determining if facilities are acceptable for the off-site receipt of CERCLA waste, and outlines the actions affected by the standard. The Off-site Rule requires that prior to a facility's initial receipt of CERCLA waste, EPA shall determine if there are relevant releases or relevant violations at the facility.

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OPTIONAL FORM NO. 1040  
FAX TRANSMITTAL  
Joy Koyser  
K-25  
12-21-94  
6-5-93  
JAN 10 1995

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On September 12, 1994, the Tennessee Department of Environment and Conservation (TDEC) conducted a Compliance Evaluation Inspection (CEI) of K-25, to determine K-25's compliance with Resource Conservation and Recovery Act (RCRA) and other applicable environmental standards. The results from the September 12, 1994, CEI, indicate that K-25 is currently in compliance with RCRA, and other applicable environmental standards. Therefore, effective upon receipt of this letter K-25 is acceptable to receive CERCLA off-site waste at the facility described above. Should any new information affecting this determination develop, the Agency reserves the right to revisit this decision. By issuing this notice, EPA is in no way authorizing K-25 to undertake any waste management practice at the facility for which K-25 has not been previously authorized by TDEC or EPA.

If you have any questions concerning this matter, please contact Edmond J. Burks, Regional Off-Site Contact, Region 4, at (404) 347-7603.

Sincerely yours,

*James S. Franzmeyer for*  
Joseph R. Franzmeyer  
Director  
Waste Management Division

Enclosure  
Off-Site Rule

cc: Tom Tiesler, Director,  
Division of Solid Waste Management, TDEC  
Robert Nakomoto, Division of Solid Waste Management, TDEC  
Mike Mobley, Radiological Health Program, TDEC  
Jim Reaves, Division of Air Pollution Control, TDEC  
Mike Travaglini, K-25  
Robert Sleeman, K-25  
cc w/o enclosure:  
David Eberly, Office of Solid Waste, EPA-HQ (5303W)  
Region 1-10, Off-site Coordinators

000134